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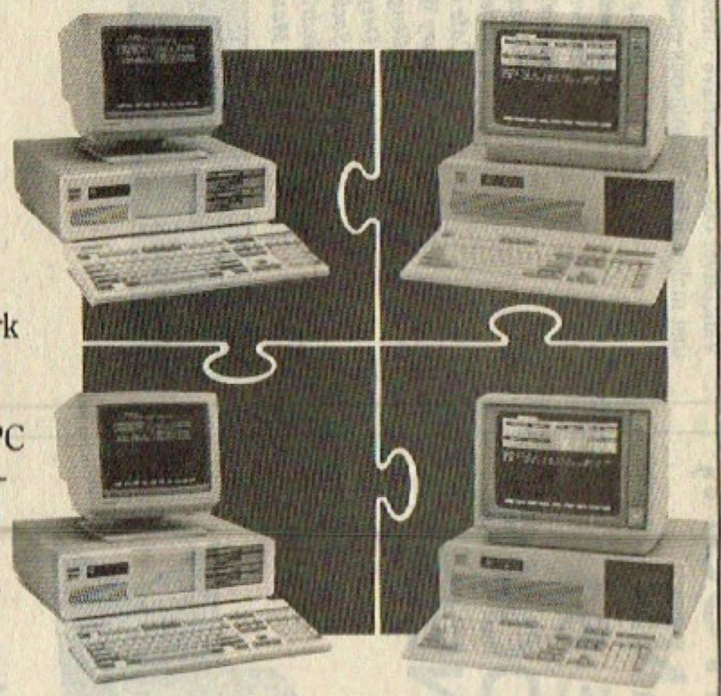

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BRITISH COLUMBIA'S COMPUTER INFORMATION SOURCE
Vol 1. No. 6 July 1983

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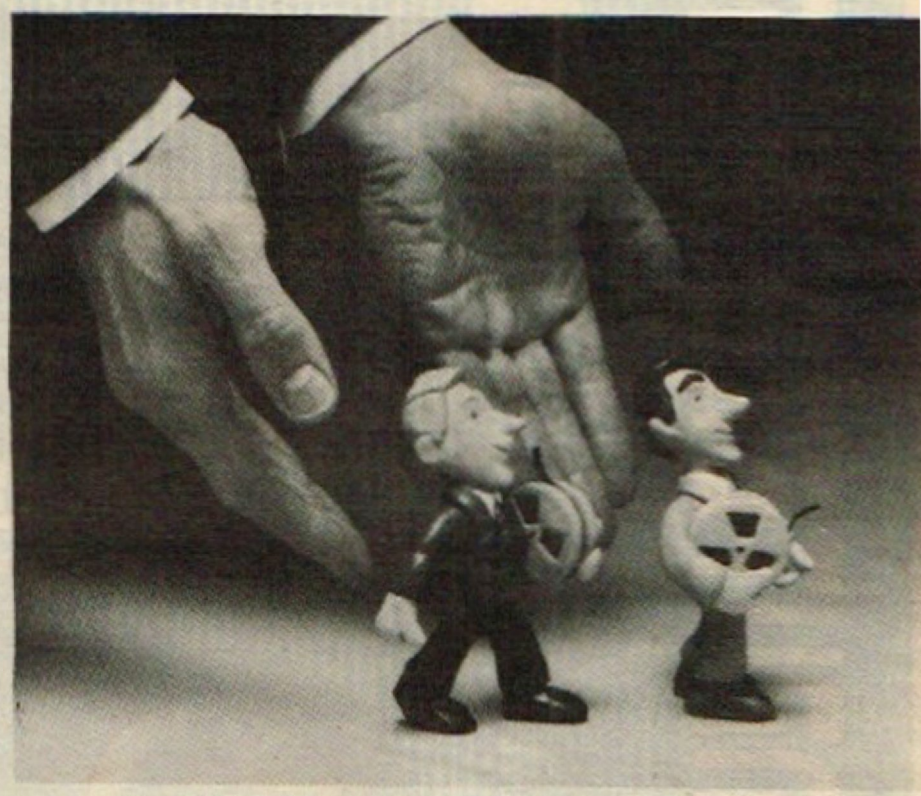

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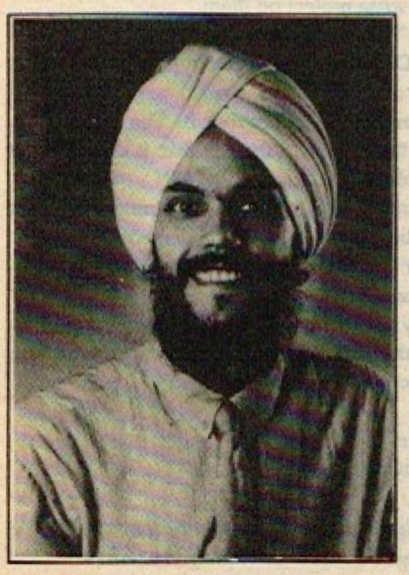
FROM THE EDITOR



Well, we said we would tackle Verticle Markets this issue. Easy to say, hard to do comprehensively, so we chose to narrow our focus somewhat.

Our lead article is based on an area of concern for many medical doctors in the province these days. The government has legislated that doctors must all be submitting their billing with computers on-line by January of 1989. The speed with which the transition is being implemented has upset many people, not the least of whom is the B.C. Medical Association. In their current negotiations with the government, the computerization issue is being used as a bargaining chip. When all is said and done, going on computer makes good business sense for most practitioners just as it does for many small businesses. Accordingly we have undertaken our Teleplan software survey to present some of the options and vendors available for those prudent doctors who are doing their shopping early.

Desktop Publishing can't really be called a vertical market these days because so many people and businesses are utilizing it. That said, we went ahead and looked at two products that interested us anyway. Thanks to Mary Kletchko from McKay Institute for the FreeHand article and Lance Bracken at VEPA for facilitating the PC article. Thanks as well goes to all our contributing writers.

The response for our paper continues to be great, it seems there are a lot of people out there with a thirst for knowledge on computers. You may see our paper popping up in new places around the city. We have acquired a number of display racks so it will be easier to find our paper. Watch for a circulation increase in the fall.

Oh yes, the cover, the cover... I was getting to that. It is true we did switch our format. Why? you ask. Well it was partly for the racks, but we also watched how people pick up our paper. Most people, after the first look through, usually tuck it away for further study later. (because of course it is packed full of interesting things to read and great deals from our advertisers.) But guess what they do when they put it away?... They fold it. After pricing corrogated covers, we decided instead to switch to the half fold. The smaller size also means we can nest on more retailer's counters and be more accessable to our readers. Now you know.

Bye til next time.

Kirtan Singh Khalsa
Publisher/Editor

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NEW PRODUCTS

New Laser Printer From Roland DG

Vancouver, BC – Roland DG Canada Inc. announces its entry into the laser printer market with its new model LP-1100. The LP-1100 incorporates a new print engine design featuring economical operation and high speed throughput.

Toner, developers, and drum can be replaced separately.The LP-1100 prints 11 page per minute throughput (30 per cent faster). Two 250-sheet trays software selectable. Emulates 5 common models: HP's Laserjet+, IBM's Proprinter, Epson's FX-286, Panasonic's KX-P1092i, and Diablo's 630. Fonts include Courier and Century 10-point. Plug-in cards with Times and Helvetica-type fonts are available. Available early July.

Contact John Mulvihill, Roland DG Canada Inc., 13880 Mayfield Place, Richmond, BC, V6V 2E4.

The Enhancible Accounting Series has been developed specifically for wholesale and distribution businesses by Hart Software Support Ltd. of Vancouver, B.C.It includes inventory, sales ordering and invoicing, banking, accounts receivable, accounts payable and general ledger.

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A complete two user fully networked system including both hardware and software will be available July 1 for $9,995. This system is expandable to 32 users. For further information or to arrange for a demonstration please call **Hart Software Support Ltd at 732-4278.**

Local High-Tech Firm Announces VAR Group

Dynapro Systems Inc., an established Vancouver firm that designs and manufactures software and hardware products for industrial automation, announced today that a new division – the Corporate Microcomputer Group – has been formed to act as a Value-Added Reseller (VAR) for high-performance microcomputer systems, components, peripherals and software.

Carrying products from AST, Everex, Lotus, Hewlett-Packard and other quality manufacturers, DSI's Corporate Microcomputer Group offers complete microcomputer systems to businesses in Western Canada. "We can provide high-end microcomputer hardware – tailored to a client's needs – at a highly competitive price," says Nigel Findley, Commercial Services Manager. "We can pass on our own experience and expertise in the computer field to businesses looking for new equipment, or planning to upgrade what they currently have."

DSI's product range includes complete microcomputer systems, application software, monitors, printers, hard disks, floppy drives, printers, network hardware and software, and other peripherals.**Contact: Nigel Findley 263-2638**

Accounting Master Software has announced the release of their July 1st software update. This new version implements the new government tax tables. Cost for existing customers is $49. Accounting Master payroll program is $495. Contact: Accounting Master at 738-8109.

Masako Holdings Ltd. of Richmond is now distributing "The Video Professor" line of video learning cassettes for IBM & MacIntosh & Apple II computers. These cassettes were developed to speed the learning curve for some of today's most popular software packages. Titles include Lotus, Wordstar, dBaseIII & Learning DOS and MacIntosh Pagemaker. Masako Holdings Ltd.275-1565

A New version of **Mac Payroll** a Canadian payroll for the Macintosh is being shipped $149 + $4.50 shipping. Updates are free on a six month basis. Yearly updates $149. Altec 530-6457

TO THE EDITOR

VIRUS ALERT

Dear TCP

I was reading through your June issue when I came upon the article in Newsbytes on Computer Viruses. We have discovered the very same "Brain" virus mentioned in the article. It was found on a number of the hard drives at Compucollege. We believe it to have come in via students disks, or perhaps off a local bulletin board. The virus buries itself in DOS so that in order to clean off your disk, you must start with a clean DOS disk and reformat all affected disks including hard disks. It is a good practice to keep your DOS backups separate from your other disks with a write protect on them.

This "Brain" Virus is the product of a warped mind. Definitely not an amateur, it is very good. It moves information around to a number of locations before destroying it. The reason it is called the "Brain" virus, is that it changes the name of the volume to C:BRAIN.

We managed to control the damage that this virus did. Even so it still managed to wipe out 50% of two data disks. This was 2-3 days worth of a class of students work.

Anyway, I thought I should let your readers know, that these viruses are real, and they are here in Vancouver, so beware.

Al Hine
CompuCollege Burnaby

It is frightening to think that people spend time creating such destructive programs when there is so much more useful work that needs being done. Readers be warned :Viruses are in Vancouver.

MASTHEAD

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NEWSBYTES

ATARI

ATARI Settles With Micron in Chip Dispute

SUNNYVALE, Ca. (NB) — Atari Corporation announced it has settled a lawsuit out of court with Micron Technology of Boise, Idaho. Atari had sued Micron earlier this year, claiming the firm violated contractual agreements when it failed to sell Atari memory chips at an agreed-upon price. Details of the settlement were not released. Both sides say the dispute has been resolved to their mutual satisfaction.

ATARI, Sunnyvale, is shipping its CD-ROM drive in limited quantities.

CANADIAN NEWS

SHL Tries to Buy Computer Innovations

OTTAWA (NB) — The continuing story of Computer Innovations Distribution Inc., BCE Inc. and Rod Bryden has taken another twist. Bryden's personal holding company, Kinburn Corp. of Ottawa, has waived its option to buy the 47 per cent of Computer Innovations now held by BCE Inc. of Montreal. Instead, BCE will sell its shares to another of Bryden's companies, SHL Systemhouse Inc., also of Ottawa. And Systemhouse is launching an offer for the rest of the shares in Computer Innovations, a Mississauga, Ont., computer retailer and systems integrator that uses the ComputerLand name in Canada. SHL Systemhouse is offering C$3.25 a share for Computer Innovations on the Montreal and Toronto stock exchanges. The offer is to close in early July, according to Kinburn spokesman John Owens. Systemhouse is a systems integration company. Owens said there is a good fit between Systemhouse and Computer Innovations, one which might not be obvious to American readers who think of ComputerLand as a storefront operation. Computer Innovations focuses much more on systems integration and large corporate customers, Owens said, and in recent months Systemhouse and CI have frequently been going after the same business. The acquisition bid has been launched with the full support of BCE, which recently named Bryden chairman of Computer Innovations and itself holds an option to buy 49 per cent of Kinburn.

BCE No. 1 in Report on Business Revue

TORONTO (NB) — THE GLOBE AND MAIL REPORT ON BUSINESS has ranked BCE Inc. of Montreal number one by revenues in its REPORT ON BUSINESS 1000. BCE, the parent of Northern Telecom Ltd., Bell Canada and assorted other companies, has been number one in the profit ranking before, as it is this year, but now has edged out Ford Canada to take top spot in revenues as well, with just over C$15 billion.

REPORT ON BUSINESS also ranked the high-technology industry over- all as the worst-performing Canadian business sector of 1987, with average return on capital plunging to minus 4.8 per cent from a positive 8.6 per cent in 1986. "Watch for takeovers as the shake-up continues," REPORT ON BUSINESS MAGAZINE commented.

Computer Associates + IBM = Small Business

VANCOUVER (NB) — Computer Associates Canada Ltd., based here, and IBM Canada Ltd. of Markham, Ont., have announced IBM Small Business Pac Accounting, a hardware and software bundle of Computer Associates' Accpac Easy accounting software on IBM PS/2 personal computers. The package will be sold exclusively through IBM authorized dealers across Canada, and includes a PS/2 Model 25 with 640K of RAM, a 20-megabyte hard disk, a monochrome monitor and DOS 3.3, an IBM Proprinter XL, and Accpac Easy installed on the hard disk. CONTACT: COMPUTER ASSOCIATES CANADA LTD., 1770 Burrard St.,3rd Floor, Vancouver, B.C. V6J 3G7, (604) 733-2343,Fax: (604) 733-4129

Montreal Videotex Launch Due in December

MONTREAL (NB)—Bell Canada will launch its videotex service, Alex, here in December. Named for Alexander Graham Bell, the service will provide access to services such as home banking, home shopping, messaging, restaurant and entertainment listings, news and financial information, through personal computers and dedicated videotex terminals. About 20,000 households will have access to Alex in its initial phase, according to Bell. The service is to expand to Toronto in 1990. Most services on Alex will be provided by independent service providers. Bell will operate the service, rent terminals, sell software to let personal computers connect to it, provide an index of services and handle billing for information providers if they wish. The service will also include an electronic telephone directory and yellow pages for the Montreal area. The terminals will rent for C$7.95 a month, said company spokeswoman Marianne Van Oosten, with the first three months free. The cost of connecting to Alex will vary depending on the service being used, with some services free and the rest costing from 12 to 45 cents per minute. Personal computer users will be able to get emulation software from Bell for a nominal charge or possibly even free so that they can connect to Alex using their PCs. CONTACT: BELL CANADA, 1050 Beaver Hall Hill, Montreal, Que.H2Z 1S4, (514) 870-1511

Copyright Act Passes Last Hurdle

OTTAWA (NB) — Canada's new Copyright Act was passed in the Canadian Senate at the beginning of June and will probably receive Royal Assent this week. Once the Governor General has given that approval, which is essentially a formality, most of the new law will come into immediate effect, replacing the existing 65-year-old legislation which says nothing about computer software. Some parts of the new Act will require the setting up of committees and official proclamation before they take effect, government spokesman Michel Hem told NEWSBYTES CANADA, but provisions relating to software will come into force immediately.

Defense Planners Forgot Network

HALIFAX (NB) — Canadian Department of National Defense planners forgot to include an essential computerized communications system in the $18-million Maritime Command headquarters here, according to internal department records obtained by THE GLOBE AND MAIL in Toronto. The newspaper says the computerized data communications system was described in the documents as "essential to the protection of security of Canada," and the omission made it impossible to process information available to the Maritime commander and his staff. The C$1.11-million system was supposed to enable officers at the headquarters, which officially opened in November 1986, to share and exchange military data using computers. But because planners neglected to include it in plans for the six-story building, the system did not operate until June, 1987. When defense officials discovered the communications system had been left out, they scrambled to buy one, the nationally distributed daily newspaper reported. But it took them and the Department of Supply and Services, the federal government's purchasing arm, nine months to prepare and mail bidding documents to 13 companies that might supply the system. The contract was eventually awarded to Honeywell of Canada. The newspaper obtained documents relating to the error under the federal Freedom of Information Act.

Fresh Concerns About VDT Hazard

TORONTO (NB) — Just when you thought it was safe to go back into the computer room, a dispute has arisen between the Ontario provincial government and the Ontario Public Service Employees Union over possible low-level radiation hazards from computer displays The union is concerned about a study released earlier this month in the United States, which found a statistically significant difference in the number of miscarriages between women using video display terminals and those doing similar jobs without using the displays.

The union is accusing the Ontario government of failing to protect employees against potential hazards The government, which has refused to add shields to its terminals to protect employees from radiation, argues that the terminals are safe and

NEWSBYTES by Wendy Woods (Western USA), Ken Maize (Eastern USA), Dana Blankenhorn (South & Midwest USA), Masayuki Miyazawa and Keizo Yammamoto (Japan), Grant Buckler (Canada), Steve Gold (UK) and Peter Vekinis (Europe)

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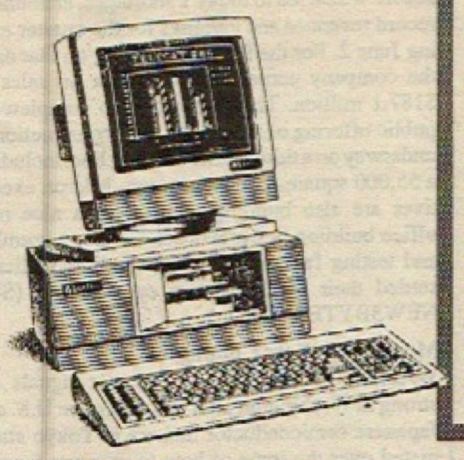

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shielding is therefore not needed Canadian studies in the past have never proved a link between video display use and miscarriages or birth defects, and even Robert De Matteo, the union's health and safety coordinator, acknowledges there is no conclusive proof of VDT hazards But De Matteo goes on to say that studies suggesting a hazard might exist should be given the benefit of the doubt, citing past instances where people have been harmed by hazards that were at first discounted and later proved real.

CHIPS

Intel's New 386 Chips Promise Cheaper Micros

SANTA CLARA, Ca. (NB) — Intel has introduced a version of its popular 32-bit 80386 microprocessor which promises to make the newest generation of power PCs less expensive The 80386SX is capable of running all software designed for Intel's top of the line 80386, according to Intel officials, but at half the speed. In turn, the 386SX is cheaper — 30% cheaper than its more powerful older sibling. Speculation has it that the 386SX will replace the 80286, the brains of IBM's PC/AT While Intel will not confirm this, Product Manager Bruce Schechter said the "80286 will move downstream" to become the entry-level processor. That swim is expected to begin immediately. Further, the 80386SX is not pin-compatible with the 80286, meaning older micros cannot be easily upgraded to the new chip without the addition of other chips called programmable logic chips. However, like its predecessors, the 386SX is a processor capable of running all 80286 microbased applications. Several "trendsetting" manufacturers are receiving the 386SX, says Intel, but the company is not naming names. Chances are good that Compaq is one of them; Compaq is slated to introduce 3 new micros on Monday, June 20, all based on the 386SX, and analysts say that IBM is also most likely on the list.

Micron's Chip Business is Booming

BOISE, ID (NB) — While you're pondering the wonders of hyper- inflation in memory chip pricing, you should know that it's not all bad news. After all the Japan-bashing of the last few years, and thanks to the 1988 suffering of the American computer industry, Micron Technologies is healthy again.

Micron, a Boise-based maker of memory chips and a prime mover behind the 1986 chip-dumping accord which led to today's shortages, announced record revenues and earnings for the quarter ending June 2. For the 9 months ending on that date, the company earned $54.7 million on sales of $187.1 million. The company also completed a public offering of new stock, and construction is underway on a third manufacturing line, including a 55,000 square-foot clean room. Micron executives are also building themselves a nice new office building, a warehouse, and new assembly and testing facilities. Finally, Atari and Micron settled their legal disputes out-of-court. (SEE NEWSBYTES-WEST.)

More Chip Wars Coming?

WASHINGTON (NB) — The war signals are strong in Washington after talks between U.S. and Japanese semiconductor makers in Tokyo stalemated over the issue of how to measure foreign access to the Japanese market. The Semiconductor Industry Association wants to measure access by market share, but the Japanese counterparts argue that market share is the result of access and effort, not the measure of access. Now, sources indicate that U.S. industry officials are huddled with officials of the Commerce Department, trying to figure out what to do next. Among the possibilities: an increase in the punitive tariffs the U.S. currently levies against Japan. But complicating the issue is the fact that the Reagan Administration's tenure is rapidly ending and the appetite for new conflicts on the part of the remaining officials is low. "We are in a hunkering down mode, waiting for a new administration," one government official told NEWSBYTES. "We don't want to get out on a limb and have a new bunch saw it off on us."

Japanese Makers Ready to End Chip Shortage

TOKYO (NB) — Mitsubishi has announced that its U.S. subsidiary, Mitsubishi Semiconductor America (MSAI), has started production of 1 megabit dynamic RAM (1M DRAM) chips. Mitsubishi promises production of half million 1M DRAMs per month starting this summer. Mitsubishi has become the fourth company to produce 1M DRAMs overseas, following Toshiba, Hitachi, and NEC.

Meanwhile, Toshiba is currently producing 4 million 1M DRAMs per month in Japan. Moreover, its monthly overseas production of 1M DRAMs has reached 400,000 due to expanded production facilities at its U.S. and West German subsidiaries. Toshiba has achieved the top spot in volume 1M DRAM production both in Japan and overseas. However, at present, Toshiba is not ready to produce 1M DRAMs in Malaysia.

DATABASE

dBase IV Will Be Late - Maybe

TORRANCE, Ca. (NB) — It's official. The long-awaited successor to dBASE III may be awaited a bit longer — but shouldn't be any later than September 30. That's the word from Ashton-Tate CEO Luther Nussbaum who addressed shareholders with news of a possible two month delay. But instead of calling it a delay, he said A-T has "extended the window of delivery from July 1 to September 30." Later Ed Esber, president, added that there are quite a few bugs to eradicate before the product can be shipped. Among those quick to respond was newsletter author Stewart Alsop, who said, "For a company that's trying to shed its Rodney Dangerfield image, it isn't doing itself any good by making it look like it just can't figure out when it will finish its primary product."

New Base dBase Clone Aimed at A-T's Market

BELMONT, Ca. (NB) — Move over Ashton-Tate, there's a new kid in town aiming to have a piece of the dBASE action Under the terms of an agreement, Oracle Corporation will market SQL-based versions of WordTech Systems' dBASE III+Plus-compatible products dBXL and Quicksilver, that allow users of dBASE programs full access to Oracle SQL databases simultaneously with dBASE+ files The result is the first migration strategy for moving dBASE+ applications to the SQL standard. The move is aimed at the market for Ashton-Tate's dBASE IV but both products are not expected to hit the market until the fall.

dBase IV Fallout: Fox & Geller Flops

ELWOOD PARK, N.J. (NB) — Although Ashton-Tate is unable to deliver dBase IV anytime soon, the mere existence of the product is causing severe problems for firms that have thrived on add-on products for dBase III Plus. Fox & Geller Inc., the first, and one of the largest, of the dBase enhancers, has folded. Wallsoft Systems, a New York dBase enhancement company, has seen sales slide by 40 percent and is struggling to keep its head above water.

Adam Green, a major dBase consultant and trainer, says three or four dBase developers will be history by the time the leaves turn colors (and perhaps before the first copies of dBase IV ship). Although Ashton-Tate announced dBase IV in February, the company has repeatedly had to pull back on shipping dates. The current guess from A-T is shipment in September, but industry observers are skeptical of that date. In the meantime, however, purchasers of database products are refusing to spend dollars on dBase III- based products until they have a look at model IV. "The dBase after-market is dried up," one developer has been reported as saying.

DESKTOP PUBLISHING & GRAPHICS

MARKETING GRAPHICS, Glen Allen, VA, began shipping Publisher's PicturePak for WordPerfect 5.0, 565 pieces of clip-art which work with WordPerfect's .WPG file format. Versions are also shipping for InSet, a memory resident program for merging graphics with Lotus 1-2-3, dBase III and other programs, and HiJaak, a conversion program which works with still other file formats.

Adobe Launches Illustrator 88

London, UK (NB) — Adobe Systems has launched Illustrator 88, a powerful new graphics software production tool. The revised package contains all the tools of the original Adobe Illustrator, and introduces goodies such as color, a blending (interpolation) tool, resolution independent pattern fills and masking.

"It's a greatly expanded package," said Jerry Byma, MD of Adobe Systems Europe. "With this product, there's no need for any other drawing package. We've provided a complete palette of tools and features which are easy for everyone to use. A business person can create attractive graphs or organizational charts in a matter of minutes. Likewise, a professional illustrator can use the same tools to create award-winning complex drawings."

Color Separation Layout System for Mac II

BEDFORD, Mass. (NB) — Scitex America Corp. has announced a system that will allow design of four-color publications on the Macintosh II, which can be read by Scitex equipment that produces high-resolution color separations. So far, Scitex's Visionary hardware/software package works only with Bitstream fonts, and not the PostScript fonts from Adobe Systems. Visionary includes Handshake-Xpress color page layout software, the Bitstream fonts, A Sharp. Corp. scanner, and a Mitsubishi thermal color printers. Prices range from $8000 to $80,000 and will be available in the fall.

Desktop Publishing Aimed at Lawyers

BUFFALO, N.Y. (NB) — Barrister Information Systems Corp. has introduced a "document finishing system" that will allow law firms to typeset documents internally. The system includes a graphics monitor, a keyboard with a legal character set, a mouse, graphics printer, and an optional scanner. No details on price. CONTACT: Barrister Information Systems Corp., Buffalo N.Y., 716- 845-5010.

GENERAL

US/Japan Television Wars

SANTA CLARA, Ca. (NB) — Determined to take the technological lead back from the Japanese, American electronics manufacturers have announced a plan to play a major role in the emerging field of high definition television. The American Electronics Association sponsored a recent powwow in which more than 50 computer, chip, and telecommunications industry executives met with government leaders and academic researchers to map out plans for the assault. "Non-participation in this market by the U.S. electronics industry will mean loss of our leading edge research and, in turn, our ability to compete in the emerging global marketplace," proclaimed Pat Hill Hubbard, AEA vice president. So the AEA has created the ATV Task Force (ATV stands for Advanced Television) made up of such strange bedfellows as IBM, Apple, Intel, Hewlett Packard, and AT&T, among others. The task force will explore what's being called a "last window of opportunity" to take the lead over Japan in the consumer electronics market. High definition television is not only a hardware problem. The technology will spawn new broadcast standards and advanced semiconductors, among other products, and is expected to be available in the 1990s.

Productivity Down Despite Computers

WASHINGTON (NB) — "Productivity growth in the U.S. economy has collapsed in recent years, and the size of the collapse has the dimensions of a crisis," is the conclusion of a recent report by the Brookings Institution. And the widespread use of computers at all levels of business doesn't seemed to have helped. "So far," says the report by Martin Baily and Alok Chakrabarti, "there has been little sign of the payoff to productivity among the industries buying computer equipment." Figures from the U.S. Bureau of Labor Statistics show that growth in output per hour of labor, the measure of productivity, fell from 3.3 percent in the years 1948 to 1965 to 1.4 percent in the years 1979 to 1986.

Baily told a press conference that in the 1970s, corporate managers were "fat and happy. We screwed up in a lot of ways." The failure of computers to make much impact, he said, may be because many corporate executives lack computer skills and have failed to take advantage of what computers can do. "We're trying to do something with this stuff, but the productivity gains aren't showing up," he said. Baily recommends more money on applied and basic research, and extension of the federal tax credit for R&D. Also, there were some stellar performances during the 1980s. Productivity in the computer manufacturing industry has increased at a respectable 3.4 percent rate.

Software Sales Soar

WASHINGTON (NB) — First quarter retail sales of microcomputer software were up 50 percent to $938 million over the first quarter of 1987 when

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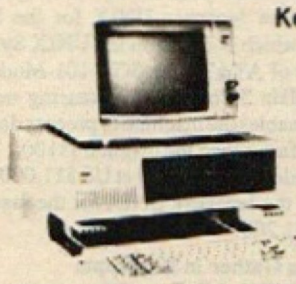

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8½ x 14 7/8	2850	Ruled	30 M	$37.75	$34.50 ea.
11 x 14 7/8	2500	Ruled	30 M	$44.45	$40.85 ea.
11 x 14 7/8	2500	Plain	30 M	$44.45	$40.65 ea.

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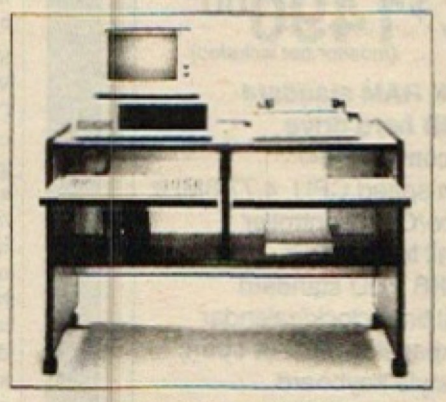
Size	Sheet Per Carton	Style	Price Per Carton	5 Cartons
9½ x 11	1400	2 Part Plain	$ 53.15	$ 49.80 ea.
9½ x 11	950	3 Part Plain	$ 77.75	$ 72.90 ea.
9½ x 11	700	4 Part Plain	$112.20	$105.20 ea.
14 7/8 x 11	1400	2 Part Ruled	$112.75	$105.70 ea.
14 7/8 x 11	950	3 Part Ruled	$130.00	$122.00 ea.
14 7/8 x 11	700	4 Part Ruled	$136.85	$128.40 ea.



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3½ x 15/16	4	20,000	$ 8.00
3½ x 1 7/16	1	5,000	$14.50
3½ x 1 7/16	2	10,000	$15.15
3½ x 1 7/16	3	15,000	$14.15
4 x 15/16	1	5,000	$ 9.90
4 x 15/16	2	10,000	$11.00
4 x 15/16	3	15,000	$ 9.90
4 x 1 7/16	1	5,000	$13.50
4 x 1 7/16	2	10,000	$13.50
4 x 1 7/16	3	15,000	$13.50

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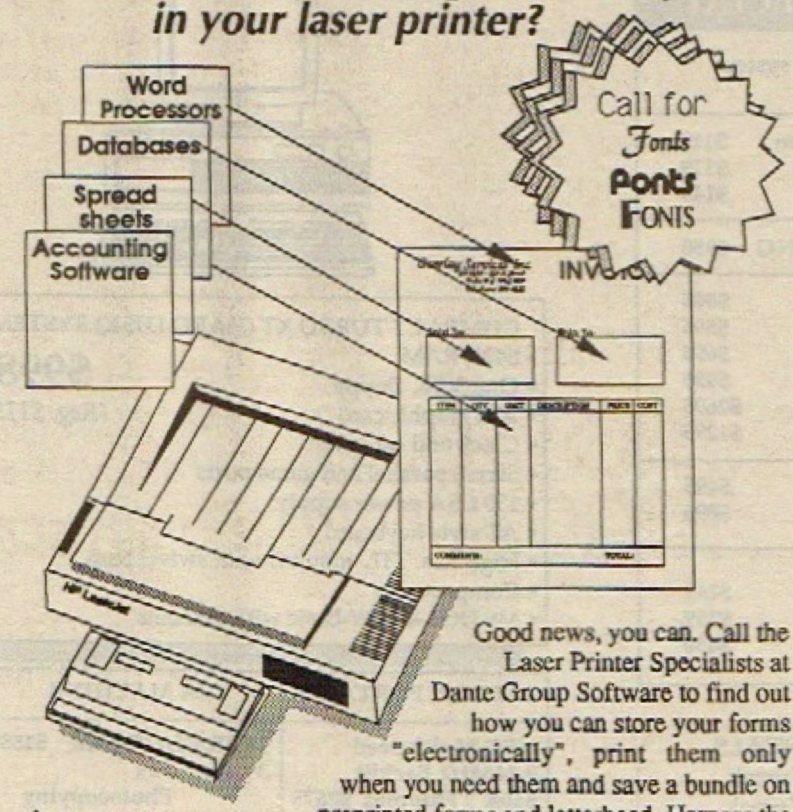

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sales totaled $623 million. As a result, says the Software Publishers Association, 1988 is likely to a a "spectacular year." By far the largest portion of sales — more than $700 million — were of DOS programs. Macintosh software sales totaled $94 million, an 85 percent increase over last year. Sales of languages and utilities jumped 57 percent, productivity software grew by 53 percent, recreational software sales rose by 37 percent, and educational software sales slid up 22 percent.

Software Monastery

WHEELING, W.Va. (NB) — Wheeling Jesuit College plans to create a software development center on its campus, by offering talented programmers free room and board and free work space. The college will also provide the software mavens with marketing and management consulting services. The hope is that the software developers will then stay in Wheeling to form their businesses. The center will provide fully equipped meeting and teaching space for the developers to demo the software to customers and their own sales people. The college will also offer computer camps and career counseling to area students. The Rev. Thomas Acker, Wheeling Jesuit's president, says the school hopes to open the doors on the software center in the 1988-1989 academic year.

DAT Talks Hit Roadblock

TOKYO (NB) — Top executives of Japanese audio technology firms have announced that their draft agreement concerning copy protection for digital audio tape (DAT) will not solve the copyright problem. A number of questions have arisen. For instance, copyright infringement can be defined as the minute a DAT recording of another recorded work is made.

The European Community (EC) contends in its "Green paper" on DAT technology that DAT recorders should be equipped with equipment that prevents home taping. But Japanese firms tend to believe that to prevent home taping is a mistake and stymies technological progress.

Rumor has it the draft agreement will pass anyway because it has the general support of the seven major audio equipment companies, including Matsushita, Hitachi, Toshiba, Sony, and Philips. The Japan- EC business roundtable on this matter is expected to be held as early as at the end of June. The conference will be attended by 10 Japanese and 6 European audio firms.

JAPAN

NEC Personal Neurocomputer for December

TOKYO (NB) — NEC claims to have developed a "personal neurocomputer" with a neural network for practical use and will release it this December. NEC claims this new computer will help in the development of character recognition systems, learning-oriented expert systems, sound recognition systems, and robot control systems, and can develop these projects in one tenth of the time it takes on other personal computers. The machine is said to be able to contain up to 82,000 "neurons," and is capable of parallel processing as many as 216,000 links per every second.

NEC says the personal neurocomputer has roughly the same processing ability as a superminicomputer, with its neuroboard and package software attached to an NEC PC9800. The neural network software, which controls all the processing, can be programmed to meet the needs of various projects. For instance, NEC is currently developing an alphabet and numeral typed characters recognition system, which can recognize about 60 typed characters per second at the accurate recognition rate of 99.95 percent. NEC says this system will be released next April. The price has not been announced.The basic price for the personal neurocomputer, including the board and software, is 680,000 yen or US $5,500.

Fuzzy Computer to be Developed

TOKYO (NB) — Research on and development of a so-called "fuzzy" computer is underway. The fuzzy computer theoretically will understand ambiguous data, such as human experiences, which other kinds of machines cannot process. To start, the Ministry of International Trade and Industry (MITI) will establish an International Fuzzy Engineering Laboratory next March, with joint investment by roughly 30 companies in several fields, including Hitachi, Toyota, Yamaichi, and Tokyo Denryoku

The laboratory will do basic and applied research on the fuzzy theory, and will design and develop control technology. The goal is to create a fuzzy machine within six or eight years. U.S. Space Shuttle maker Rockwell International and West Germany's Siemens are also expressing interest in the fuzzy computer and they are likely to join the project. MITI is planning to lure U.S. and Chinese companies into the research as well.

LAPTOPS

New Toshiba 100 MB Hard Disk Laptop PC

TOKYO (NB) — Toshiba has developed a high-end model of its laptop personal computer, the J3100 SGT-101-Model Toshiba promises to release it this September The SGT-101-Model comes with a staggering 100 megabyte hard disk drive (100M HDD) The machine runs on Japanese MS-DOS. English MS-DOS and Japanese UNIX-based operating systems are optional for the machine Also, Toshiba will release MS-OS/2 for the machine within the year. At the same time, Toshiba will release Japanese UNIX for the SGT-101-Model, which is based on the UNIX System Version 3.0 of AT&T. The SGT-101-Model runs on the 20MHz 32-bit microprocessing unit 80386, which enables the machine to process data 20 to 30 percent faster than the original J3100. The SGT-101-Model will be priced at US $11,000 The basic price of the Japanese UNIX for the machine will be US $1,200.

Laptops Gather in Big Apple

NEW YORK (NB) — Want to know how to computer from a phone booth? Or the etiquette of computing at the dinner table? Then Laptop 88, the first trade show devoted to the lovable, luggable laptop, was the place for you. Naturally, the featured speaker was Adam Osborne of Paperback Software, whose sewing-machine-sized Osborne computer (NEWSBYTES EAST used to be produced on one—Ed.) first introduced the concept of computer portability. According to conference producers Executive Computers, 1988 will see 630,000 battery-powered laptops sold. Laptops, the firm said, are the fastest growing and largest segment of the current computer industry, with manufacturers such as Sharp, Toshiba, Zenith, Dataview, Tandy, Samsung, Epson, NEC, Mitsubishi, and Z88 making major offerings.

MACINTOSH

Lotus Cancels Modern Jazz

CAMBRIDGE, Mass. (NB) — Lotus Development Corp. has dropped its plans for Modern Jazz, an improved version of its slow-selling integrated Macintosh product, Jazz. Instead, Lotus will push a version of 1-2-3 for the Mac. The company will continue to sell and support Jazz. The embarrassing announcement came just a day after Lotus said it was delaying the Modern Jazz concert. Lotus Senior Vice President Frank King told reporters: "After reviewing the Modern Jazz project, we concluded that it no long fit into Lotus's long-term product strategy."

The decision to axe Modern Jazz won't have a significant financial impact on Lotus, which sells only a tiny amount of software for the Mac environment. However, coming hard on the heels of announcements of delays in new versions of 1-2-3, the announcement has caused some observers to question the ability of Lotus to bring needed products to market in a timely fashion.

Macintosh Today Gets Scoop on New Macs

San Francisco, Ca. (NB) — Apple will probably introduce four new Macintoshs within the next year and a half, ranging from a laptop to a high-end 68030-based machine called "The Tower," according to MACINTOSH TODAY. The trade weekly quotes sources as saying there will be a laptop, a 3-slot Macintosh, a color SE, and a floor-standing processor The Macintosh with 3 slots, code named Mac 1 1/2, will have a 68020 processor, as the Mac II does now, 2 megabytes of RAM, and an option for a half height drive or two floppies The price, says M.T., is expected to be around $4,000. Sony is said to be gearing up for production of color monitors for a new SE that would begin shipment in the first quarter of 1990. The Tower, a multiuser machine, is expected to be a floor-standing model capable of supporting multitasking for up to 16 terminals. The magazine says the major uncertainly in the rumored release dates for these new Macintoshs will involve the current DRAM shortage. If it persists well into 1989, the release dates may be put back further.

Closeview Creater Gets Boost From Apple
BERKELEY, Ca. (NB) — When Apple announced operating system 6.0 for the Macintosh would include CloseView, a "control panel" device that magnifies anything on screen by a factor of 2 to 16 times, Berkeley System Design, maker of competing inLARGE, was besieged with calls from reporters. "Are you upset that Apple is cutting in on your market?" they asked. Berkeley System Design couldn't talk, being under a non-disclosure agreement from Apple In truth, they were delighted. Berkeley developed CloseView for Apple, and will have its name displayed on every copy for those seeking even more features in a magnification program InLARGE ($95), specifically adds automatic scanning for reading, crosshair option for easier cursor location, image "stretching," full documentation in large print and on disk, and magnification of only a portion of the screen with the option to "blank out" the unmagnified areas. The National Institute of Health gave Berkeley System Design a grant to develop inLARGE two years ago and the challenge since has been in informing those people who need it "We're delighted (with the Apple deal)," says Wes Boyd, president of the company. "The Mac is being transformed from the least accessible machine on the market to the most accessible."

Display Postscript Nixed by Apple
MOUNTAIN VIEW, Ca. (NB) — Adobe's Display Postscript will not be adopted for use in Macintosh screen displays, so says Apple's Jean Louis Gassee. The apparently final word has come down from Apple's top corporate suite; Gassee has been quoted as saying, "We want to do something different."Apple had been chewing on the possibility of adopting Display Postscript for future Macintoshs, but has finally decided to stick with QuickerDraw Published reports indicate, however, that the screen language is making headroads into plenty of other computers, including new ones coming from Digital Equipment and NeXT Analyst Tim Bajarin of Creative Strategies has been pointing to the new Open Systems alliance of IBM, Hewlett Packard, and Apollo, as more parties interested in adopting the product.

Icon Review, Carmel, Ca., has laid off 20 employees, half the company, in the latest effort to bring costs in line with revenues. The firm, which does mail order software business, is looking for more venture financing, but "is still in business," according to officer Mark Randolph.

PAPERBACK SOFTWARE, Berkeley, Ca., is expected to release a new version of VP Expert for the PC this week and promises a Macintosh version by the first of August.

T/Maker Mountain View, Ca., is said to be holding back the latest release of WriteNow to coincide with a July introduction of Steve Jobs' NeXT computer.....

Novell Integrating the DOS, OS/2 & Mac
LONDON, UK (NB) — Novell UK has unveiled a new innovation in networking software, Netware V2.15 which links the Dos, OS/2 and Macintosh environment together. According to Andrew Zoltowski, general manager of Novell UK, more than 18 independent developers including Ashton-Tate, Lotus and Wordperfect, have already made commitments to produce compatible products supporting Netware 2.15 and Netware for the Macintosh. "By drawing the Macintosh under the Netware networking umbrella, it means that users of the PC, PS/2 and Macintosh can all share information on a single network. So, if you like working under Dos you can, whilst your colleague can work on his Mac. It's all possible now under Netware," Zoltowski told NEWSBYTES UK. Apple UK is pretty keen on the new Novell networking software as well. June Burley, Apple UK's marketing manager for desktop communications told NEWSBYTES UK she sees the new software as forming the basis of an industry standard. "Applications programs written to Appleshare are also 'Netware aware' and will work with the Netware server. Developers will be able to support industry-standard application program interfaces which will enable them to optimize the most powerful features of both Macs and PCs," she said. When the dust settles from the product announcement fanfare, it will be interesting to see how many Mac users will allow their machines to be hooked into the same network as a PC.

Apple Releases New Mac System Software
CUPERTINO, Ca. (NB) — Yet another update of the Macintosh operating system has been released — version 6.0. The newest version, available free with all new Macintosh computers, is priced at $49 when sold separately. It has a bundle of new features which include enhanced system and MultiFinder capabilities. Among the most remarkable addition is a MacroMaker program which is used to assign and reassign keyboard commands, automate opening and closing of folders, launch applications, open files, or record lengthy amounts of text. It employs an interface resembling a tape recorder with familiar commands such as record, play, store, load and erase. Once installed, the program appears on the menu bar of every application.

Hyper Expo and Stack Mart, held June 11-12 in San Francisco, drew a small crowd and a small number of exhibitors with most HyperCard developers preferring to take a "wait and see" attitude before participating in this first year event. The event was SO small that it didn't even have a press room nor a speaker's lounge.

Copyright Protects Computer Screen Displays
WASHINGTON (NB) — In a ruling that should have wide impact, possibly including implications for the Apple suit against Microsoft and Hewlett-Packard, the U.S. Copyright Office has ruled that software copyrights include protection of graphic screen displays. The ruling, however, does not directly touch the "look and feel" issue that has been raised in several important suits. Under the look and feel argument, notes one copyright expert, Shakespeare, if he were alive, could sue "West Side Story" for stealing the look and feel of "Romeo and Juliette." The Copyright Office ruling says that when a software company registers a program, the copyright automatically extends to the graphic and text displays created in the program. Software publishers don't need to register the screens and text separately. For example, said Copyright Office lawyer Richard Glasgow, a copyright for Apple's Macintosh software probably protects the trash-basket symbol. Apple would simply have to provide "an original drawing" of the trash-basket to win protection, Glasgow said.

Microsoft Shows New Mac Software
SAN FRANCISCO (NB) — Microsoft has announced new versions of Word, Excel, PowerPoint, and File, and has vowed to continue writing software for the Apple Macintosh despite friction with the Cupertino, Ca. firm over a current software-related lawsuit. At a news conference here, Microsoft officers, including Chairman Bill Gates, unveiled Word 4.0, which now includes features found in many desktop publishing packages. Word 4.0, clearly with the most changes of all the products announced, now provides page preview, allows text to flow around objects or any bit-mapped image, offers customized commands, color, page reformatting, and other new features. It will be available in October for $395. These are the first major Macintosh program upgrades from Microsoft since Apple launched its suit, charging the firm violated Apple's copyright on the Macintosh visual interface in Presentation Manager, software being designed for rival IBM. Gates assured reporters of his commitment to Macintosh software, "Although we disagree with Apple in that lawsuit, it's not affecting what we're doing."

SUPERMAC TECHNOLOGY, Mountain View, Ca., is shipping SpeedCard, a plug- in accelerator for the Macintosh SE. SuperMac says the $399 card doubles the speed of the Macintosh SE with a 16 megahertz 68000 processor and a 16K hardware RAM cache mounted on a plug-in card.

Microsoft Chalks Up First Win Against Apple
SAN JOSE, Ca. (NB) — Microsoft has been granted a request to separate the suit filed against it by Apple Computer into two separate pieces — one a licensing, the other the notorious "look and feel" dispute. Microsoft attorneys claim that the licensing dispute, in which Apple has charged Microsoft with going beyond the bounds of a 1985 agreement to use copyrighted elements of the Macintosh display, is the key to the entire case, and if settled in Microsoft's favor, the entire suit is settled. The U.S. district judge hearing the case has predicted a trial on the licensing issue could come as early as October.

The second half of the suit, whether Microsoft and Hewlett Packard are violating Apple's visual

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copyrights, may not reach a trial stage until late 1989, at best, say those close to the case, and then only if the licensing dispute is settled in Apple's favor.

APPLE COMPUTER, Cupertino, Ca., promises Version 1.2 of HyperCard will be available by June 15. The main difference between this and the earlier version is its ability to work with CD-ROM drives. The new version of HyperCard is available free from local Apple dealers. And speaking of CD-ROM drives, Apple got the first ones out the door last week (5/24). Europe, Japan, and Canada can expect to see them by the end of July. The drives cost $1,199.

PC NEWS

Digital's Dr-DOS to Compete with MS-DOS

MONTEREY, Ca. (NB) — Digital Research has come up with a DOS to rival Microsoft's hugely successful operating system and plans to market it aggressively, offering DR DOS at 50 to 60% less to the computer industry on an OEM basis DRI says its new DOS is fully compatible with MS DOS 3.3 and even offers several improvements, including the ability to create files up to 512 megabytes in length, password protection for all directories and files, and online help files. Could DRI be getting into legal hot water over this product? Absolutely not, say DRI officers The operating system is derived from Concurrent DOS, which in turn is derived from CP/M, and neither product infringes upon Microsoft copyright. DR DOS will be delivered already in ROM to computer manufacturers who buy it Shipments are scheduled to begin this fall.
DRI hopes to eventually sell DR DOS to end-users.

Ashton-Tate Issues Forth Framework III

TORRANCE, Ca. (NB) — Ashton-Tate has announced the successor to Framework II, and a number of changes have been made to the 6-in-one integrated software package. There's now a LAN version with in-house electronic mail capability, mouse and color support, and an onboard thesaurus. The $695 Framework III, which includes spreadsheet, word processor, database, telecommunications, graphics, and idea processing functions, is set for shipment July 31. Framework LAN will run $995. Owners of Framework II can upgrade for considerably less.

Ashton Tate Goof Forces Recall

TORRANCE, Ca. (NB) — Ashton-Tate is recalling certain packages of MultiMate Advantage II and dBASE III PLUS because of a software bug Users will see an "insufficient memory" message when the program is installed, resulting from a mislabeling of serial numbers during the manufacturing process Some, but not all, of the packages have the software bug Ashton-Tate has nevertheless decided to replace all the problem diskettes in all the packages within the identified serial number range If you suspect you may be among those with affected packages, contact Ashton-Tate's customer service representatives. CONTACT: ASHTON-TATE, 213/289-6300 (East Coast) or 213/329-9989 on the West Coast

Borland Releases Sprint Word Processor

SCOTTS VALLEY, Ca. (NB) — Borland's Sprint: The Professional Word Processor has finally hit the market. The unique PC program, equipped with a "soft" user interface that can be programmed to act like several popular and competing word processing programs, has successfully been test-marketed in France before its U.S. introduction — successful to the tune of commanding 30% of the market after just eight months after its French release. Priced at a reasonable $200, Sprint features customizable function keys and menus, and comes with templates which give the program the "feel" if not the look of WordPerfect, WordStar, Microsoft Word, MultiMate, SideKick, FinalWord II or EMACS. The product's two other claims to fame are its ability to work with some 350 printers, and has an integrated spelling checker and 220,000-word thesaurus.

Another unique feature of the program is its data protection capability. In the event of an accidental exit of files, an unplanned exit of the program or a power failure, the AutoSave function automatically saves the work as it is typed. In a graphic illustration of this function, Borland's CEO Philippe Kahn said, "At one user's group demo I typed in 32,000 lines and pulled the plug on the machine. It rebuilds everything to the last character you typed. They stood up and applauded." Kahn says an OS/2 version of Sprint will be available later this year.

Spreadsheet Wars Escalate

REDMOND, Wa. (NB) — The spreadsheet war is escalating between giant Microsoft, Lotus, and Borland International. Microsoft, which appears to be the underdog in this battle, may move up fast with a new marketing ploy — a money-back guarantee for buyers of its Excel spreadsheet. Buy Excel ($495) now and you have until Jan 1, 1990 to return it for a full refund. Why is Microsoft allowing customers to wait so long? "The guarantee is designed to give customers ample time to evaluate upcoming versions of (competing) Lotus 1-2-3," says a company blurb. Borland, meanwhile, boasts that its Quattro spreadsheet is outselling Microsoft Excel by a two to one margin in the U.S., and adds that 100,000 copies of the software have been sold since the product's introduction 6 months ago. Borland, meanwhile, has offered a limited money-back guarantee on its products and Quattro is no exception. Lotus is still the sales leader, having sold an estimated 4 million copies of 1-2-3 with 100,000 copies being sold each month. Microsoft is estimated by Goldman, Sachs & Company in New York to be shipping about 10,000 copies of Excel each month. Figures for Borland were unavailable.

OS/2-PS/2

ACER TECHNOLOGIES, San Jose, Ca., the U.S. subsidiary of the Taiwan computer maker, claims to be the first out with a PS/2 clone The Acer 1030 is said to be fully compatible with the PS/2 model 30, but is 20% faster The price is $1400 without monitor and includes 640Kb of RAM and two floppy drives Acer promises to have the first Micro Channel clones on the market soon See NEWSBYTES- JAPAN this week.

DOS 3.4 Delay Due to Apple-Microsoft Suit

PARIS, FRANCE (NB) — Rumors are rampant here that IBM's continuing failure to announce the latest version of DOS, DOS 3.4, is due to concern about the Apple/Microsoft "look and feel" lawsuit. Our sources in France advise us that DOS 3.4 has not been announced for fear it may provoke more legal action from Apple. DOS 3.4 is expected to have a graphics interface (as well as two device drivers which support Expanded Memory and the LIM spec) and we hear it may look too similar to the Presentation Manager and Windows. More on this rumour as we hear it.

IBM Unveils 7 New Micros, Cuts Prices of Some PS/2 Models

SAN FRANCISCO (NB) — IBM has unleashed seven new models in the PS/2 series of microcomputers, including a super-fast, Intel 80386-based system, and has slashed prices on several other machines. All the new systems are shipping now except for the high-end Model 70 which is due for delivery in the third quarter of '88. IBM has also revealed it has applied for an unspecified number of patents on the new computers, which is expected to make it harder for manufacturers to copy or "clone" the machines.

- The top-of-the-line PS/2 Model 70, based on the Intel 80386 chip, is the size of the older Model 50. But its claim to fame is a 25 MHz microprocessor, making it the speediest micro IBM has yet offered — 1 1/2 times the speed of IBM's previous top-of-the-line machine, the floor-standing Model 80 386. The machine comes in three configurations which range from $6,000 to $11,295 and differ only in their clock speed and onboard memory capacities.

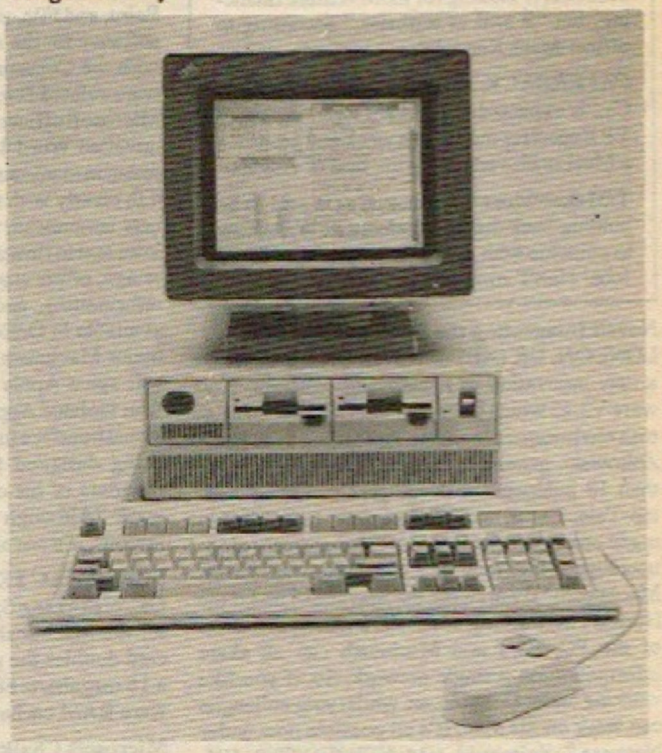
- The Model 50 Z, an 80286-based system operating at 10 megahertz, offers no wait states and up to 35% greater processing performance than the older Model 50-021, IBM's most popular PS/2 machine. It costs $4,000 for a version with a 30 MB hard disk and $4,600 with a 60 MB drive.

- Two new versions of IBM's lowest-end machines were also trotted out. Both based on the 8086, the Model 25 LS is designed to be a station on a Token Ring LAN. A second version comes with a 20 MB fixed disk drive. The prices are $2,139 and $2,484 respectively.

IBM also announced price reductions ranging from 5 to 18% on Models 60 and 80. For instance, a Model 80-311, which was $14,000, is now $12,000.

Asked by NEWSBYTES if the price reductions were due to increasing competition from PS/2 "clones," IBM spokesman Dick Gough said they were not related. "Our intention is to offer improved price and performance, in the 20 or 25% a year range." He added, "I haven't seen any clones shipped yet anyway." Analysts suggest IBM is also positioning its prices to compete with a wave of new 80386 machines based on the newest 80386-SX chip, code-named P9, due out from Intel June 21, according to NEWSBYTES sources. The 80386-SX, a slower, cheaper alternative to the 80386, is expected to be a 16-bit, rather than a 32-bit microprocessor.

The corporation also announced it has shipped its 2 millionth PS/2 machine this month.



Model 70 IBM's New 386 25 MHz

IBM Canada Announces New PS/2 Models, Price Cuts

MARKHAM, Ont. (NB) — Along with the rest of IBM worldwide, IBM Canada Ltd. announced on June 2 the PS/2 Model 70, new versions of the Model 25 and Model 50, and price cuts on existing models. Prices and availability are as follows:

IBM's New Models & Prices:

	Old Price	New Price	Available
Model 25	$2,095	unchanged	
Model 30-002	$2,595	$2,525	
Model 30-021	$3,495	unchanged	
Model 50-021	$5,495	$5,295	
Model 50 Z-031	N/A	$5,895	June
Model 50 Z-061	N/A	$6,795	June
Model 60-041	$8,245	$7,795	
Model 60-071	$9,795	$8,545	
Model 70 386-E6	N/A	$8,845	June
Model 70 386-12	N/A	$11,795	June
Model 70 386-A2	N/A	$16,645	3rd Qtr.
Model 80-041	$10,895	$10,345	
Model 80-071	$13,195	$11,795	
Model 80-111	$17,095	$13,595	
Model 80-311	$21,795	$17,695	

(S.R.P. in Canadian dollars.)

Dell Pays IBM PS/2 Clone Royalties

AUSTIN, TX (NB) — Dell Computer has signed a license agreement with IBM regarding IBM patents on the PC and PS/2 lines. The agreement will let Dell make not only its existing PC clones, but the PS/2 Micro Channel clones it showed at Comdex in May. Dell will pay IBM royalty fees on both its PCs and PS/2 clones, including retroactive payments on PC clones made over the last few years. The move puts pressure on other clone-makers to pay up to Big Blue, which says it will ask all clone-makers for up to 1% of their revenues as royalties, and raise the price to 5% on the PS/2 line.

THE STOCK MARKET

Hartco Enterprises Inc, Anjou, Que., made a profit of C$702,000 in the three months ended April 30, up from C$295,000 in the same period a year earlier Revenue rose from C$20.5 million to C$30.6 million. Harto is a franchiser of MicroAge computer stores as well as running other retail operations.

Egghead Goes Public BOTHELL, Washington (NB) — The phenomenally successful retail chain Egghead Software, has gone public, selling off 3.6 million shares, or about 23% of the company, at $17 per share. Underwritten by Donaldson, Lufkin & Jenrette and the First Boston Corporation in New York, the public offering was expected to generate $50 million, which Egghead plans to use for working capital and capital expenditures to support its planned expansion.

BCE INC., Montreal, has acquired another 951,300 shares of Memotec Data Inc. since early February. BCE currently owns 31.3 per cent of Memotec.

COMTERM INC., Montreal-based computer terminal and office automation vendor, made a C$332,000 profit in the three months ended April 30, an improvement over its C$1.047-million loss in the same period last year. Revenues were C$11.2 million, up from C$10 million.

LANPAR TECHNOLOGIES INC., Markham, Ont., lost C$797,000 in the three months ended April 29, worse than a C$600,000 loss in the same period last year. Revenues were C$10.6 million, down from C$10.7 million. Lanpar makes PCs, computer terminals and components.

MIGENT SOFTWARE CORP., Vancouver software developer, lost C$1.6 million on revenues of C$4.4 million in the nine months ended March 31. Last year the company lost C$1.7 million on C$3 million revenues in the same period.

UNIX

Open Software Foundation Courts Japanese

TOKYO (NB) — John L. Doyle, director of the Open Software Foundation (OSF) has visited Japan to drum up support for a new version of the UNIX operating system, but from most accounts his visit was not received with overwhelming enthusiasm. The OSF was established by seven computer makers, including IBM, Digital Equipment, and Hewlett Packard in U.S., and Siemens in Europe. The foundation, which is a direct challenge to the Sun/AT&T alliance developing the next generation of UNIX, seeks to develop its own UNIX-like operating system and has earmarked an initial $90 million to the cause. Doyle told reporters, "We have already raised 90 million dollars and we want more sponsors, including Japanese PC makers, to join the OSF. We have sent to about 300 Japanese PC makers letters asking for their participation in the foundation."

Selling the World from Vancouver

Evergreen salesmen go On-Line instead of On-The-Road

A unique marketing channel is being developed by a North Vancouver company that is the forerunner to a new way to market and service software. Evergreen Technology Corporation bill themselves as the leaders in concurrent software. The company's stated purpose is to create more efficient, cost effective ways of training large numbers of people in information technology. Their target market is the Fortune 1000, companies with a large enough installed base of PC's to justify this type of training product.

"Channel 13" Telemarketing

The steps involved in Evergreen's unique telemarketing concept, what they like to call Precision TeleSales are as follows:

Step 1. Track down a potential buyer in the MIS deptartment of a Fortune 1000 company on the phone.

Step 2. Convince him/her to download the software demo products which are available on a BBS maintained by Evergreen. According to founder Johnston, up to 90% of prospects respond to the offer because of the uniqueness of the approach and the nature of the product which promises training productivity increases. The very act of downloading the software increases the commitment of the client to the product.

"..The ace up the sleeve for Evergreen is that Gil Johnston's U.S. company owns the patent for *all* interactive software training systems..."

Step 3. Take the prospective customer through the on-line live demo. Two phone lines are used, one voice line to the buyer and one data line which links the two computers together. In the process of the demo, prospects are further qualified. Often through the camaraderie developed in the demonstration, the prospect will evolve into an internal corporate "champion" for Evergreen's products.

Step 4. Initial sale of site license for CAS, GLOS or SST (see accompanying box). Evergreen's hope is that this sale, which averages $17,000 or more, is but the first of many. The analogy they use is that of the razor company which sells its razor at a low price to hook the buyer on the purchase of an ongoing supply of more profitable razor blades. Evergreen then plans to make further sales of Computer Aided Training courses on applications software such as Lotus 123, MS-Word, WordPerfect etc., which can be further customized to the needs of the client company. The projection is that final sales of such courses could amount to more than ten times the value of the original sale.

"Channel 13" is what Gil Johnston at Evergreen likes to call this unique method of telemarketing that they have pioneered. The use of the SST communication product to link up and present the Evergreen family *(continues following page)*

New Headache for Canada's Chartered Banks

Spells Relief for Canadian Business

The Accounting Master Payroll Program may spell the end of the chartered banks domination of the payoll processing market for many small and medium sized businesses. Now business owners can complete their own payroll in house, and save a bundle on bank charges and interest.

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The company's money can earn interest for the company *not* the bank. Again, providing big savings for the small to medium sized business particularly if a large overdraft is involved.

Accounting Master Inc., of Suite 163-2619 Alma St, Vancouver has introduced the definitive payroll program for the IBM and compatible computers. This easy to use program does it all for you. T4's, employee separation reports, journals, cheques, pay advices, and detailed job costing are just some of the reports it handles. It even exports directly to ACCPAC™ general ledger, but saves the complex set up time often associated with ACCPAC's own payroll program.

Until now payroll software for personal computers has been either too simple to handle more than the most straight forward situations, or too big and expensive to set up. Accounting Master promises to be the best solution possible, it is easy to learn and inexpensive to buy and maintain.

The manual documentation does an excellent job of bringing the user quickly up to speed on everything needed to run a payroll. You probably will never need it, but it is nice to know that free support is always just a phone call away.

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Evergreen's President Gil Johnston

(continued from previous page) of end user support and training products over the phone has advantages to busy Information Systems executives as well as to Evergreen. Demonstrations can be scheduled at the convenience of the client and require less time and preparation on the client's site. Technical support personnel are available as required and delays are minimized. Technical issues can be dealt with immediately. Installation and technical evaluation have been completed within hours over the phone if required.

Evergreen has sold to over fifty Canadian and U.S. companies. Their list of customers includes Microsoft, BC Tel, Northern Telecom, AT&T and Air Canada.

Company President Gil Johnston

Evergreen's principle is Dr Gil Johnston, a long time BC resident. He was raised in Nelson and spent many years as an educator in rural B.C. "I was always on a mission" recalls Johnston. He eventually realized that he was only having limited success with a small number of people. He decided that the new PC technology would allow him to have a greater impact. "Basically, it is like teaching the whole planet a new language- a new syntax , grammar and logic." He saw real-time computer aided education as the best route to a new type of teaching.

The Patent

The ace up the sleeve for Evergreen is that Gil Johnston's U.S. company owns the patent for all interactive software training systems. The patent is for the concept of concurrent training and not for any particular program which achieves this. Since he owns the right to create computer aided training which operates concurrently with any operating system, it puts a number of large software vendors, in violation of his patent. Evergreen intends to pursue these violators at a later date. If the U.S. courts uphold these rights, the revenue potential for licensing his patent could be substantial. Says Gil " If nothing else works, I could sit back & live off the proceeds for the next 17 years."

Plans to go Public

As with many of B.C.'s entrepreneurial high tech companies, Evergreen plans to go public in the near future. To date upwards of $2 million dollars has been invested from private placements to develop the current software. An advantage that they have over other start-ups is that, with well developed software and their "Channel 13" marketing approach, they are at the point where they are actually making and living up to their own healthy sales projections. The added bonus of potential revenues from the patent on concurrent training make this a company to watch for in the future.

Evergreen Technology Corporation can be reached at PO Box 86636, North Vancouver V7L 4L2 Telephone: (604) 986-6121

I Run Your Computer, Then You Run Mine

Evergreen's Amazing Concurrent Software

The Software

Evergreen has developed three distinct products which operate concurrently to both DOS and application software. These products are:

SST (Software Support Tool)

This is a direct computer to computer link where two or more computers are linked together over telephone lines n a kind of "interactive FAX" environment where they share key strokes. Both parties load an application, say Lotus 123, and then they can work together on the same file. SST also has a mouse driver which allows a pointer to highlight an on-screen area under discussion. The SST minimizes delays in information transfer by sharing keystrokes in synchronized mode rather than transferring whole screens of information.

GLOS (Concurrent Glossary System)

GLOS is a memory resident system for developing and presenting customized reference windows for tasks undertaken at PC workstations. GLOS presents on-line reference material over any computer application at the touch of a key. Paper documentation such as corporate policies, procedures, computing standards, decision tests and software command references can be presented on-screen with GLOS.

CAS (Concurrent Authoring System)

This authoring system since it runs concurrent to DOS can be used to teach the ins and outs of DOS. It can also take a total beginner from the somewhat threatening A> prompt of DOS into an application program, such as a word processor, demonstrating how the program works and then assisting the student out of the session back to the DOS level. At any point in this demo, the student is free to actually use the program. This concurrent approach to training allows more freedom to the student who can then experiment with the full range of the program, rather than being limited to a highly structured set of options available under other approaches. CAS also considerably shortens the time for training course development. Instead of up to 200 hours to build a 1 hour course, Evergreen claims courses can be developed in 20-30 hours.

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What Makes the Mail Go Awry?

Have you ever wondered whether your direct mail efforts can be helped by software? A North Vancouver firm, Krieger Data International, has released software they have entitled "Promark Direct Marketing Software". Krieger has been around since 1973. Initially they provided data processing on a mainframe, and later they developed and marketed a mailing list management package called Direct Mail Pro. Promark is the updated and enhanced version, and has been on the market since November 1987.

Direct Marketing •Fund Raising •Mailing Lists

KriegerData sells its family of products as an industrial strength mailing list management system. The company promotes Direct Marketing, Fund Raising and Membership List Maintenance as the main uses of the product. My company's focus is direct marketing and correspondingly I have looked at Promark's product in this light.

Most businesses maintains a mailing database of some sort, perhaps a list of contacts, products sold or their business suppliers. In the direct marketing business, that database can be the company's most valuable asset. Proper database management is one of the keys of direct marketing. With the introduction of the personal computer, only a handful of PC software companies have devoted time to creating reliable and useful mailing list software programs that offer the same benefits as the larger mainframe or custom designed systems do. Krieger Data International's latest software, is actually comprised of four separate components: Promark, Dupe-Out, FastAnswers and Post Link.

Promark: The Database

The database is the core of this system, providing the user with the ability to create the file, edit the information, and print personalized letters, labels and lists. Effective use of this program requires a hard drive. The basic commands are user friendly, and where an error is made, the error messages take the user by the hand to explain the next step.

Beware the Set-up

The creation of the database fields is critical, not only because of the type of information that you will want from the system later on, but also because once the fields are created, it is an involved process to change a field.

Word Processor Lacks Features

The manual states that Promark can be used as a word processor; I would suggest this only if your main word processor has died. As a word processor, Promark lacks the ability to underline, embolden text, or use font styles & type sizes.

Sample Templates

One nice added touch for the first time user are the sample text files that are enclosed with the package. The sample data and text files give some good ideas for setup, and can be used to print labels within the first five minutes.

Documentation

The manuals for Promark have improved 100% over the documentation from the previous version. The five manuals describe groups of similar functions, and have excellent directions. There is a fast track as well as a more involved description.

Wish List

There are a number of additional points that I would like to see in the next version, including more specialized fields which automatically add and subtract. Calculating fields seem like such an obvious requirement in many types of direct marketing.

A second recommendation, previously mentioned, would be adding the ability to underline, embolden, change or add fonts and type styles. These turn a poor looking letter into a visual masterpiece. As Promark places an emphasis on mailing lists, it should also have the reporting capability for first, second and third class postage.

Promark has a number of good points. It is easily learned in 5 to 8 hours, it has password security to prevent unauthorized access to the program and information is easily imported and exported from and to ASCII text file formats. In addition, batch or individual records can be deleted, as well as random *nth* sampling/field selections are possible. Promark is a good software program to maintain a large but straight forward mailing list.

Dupe-Out

Dupe-Out is a duplicate field elimination program. It is the best "purge" program that I've seen. There are a number of "purge" programs on the market, however very few for the PC environment, and less that can select duplicate records on the criteria of your choice. Dupe-out works quickly on a PC and is extremely flexible. It works with Promark, dBase III and ASCII files. Dupe-Out searches duplicates records for exact field matches or near matches. It has a good manual, and is simple to learn.

There is only one addition that I'd like to see. Ideally, they would structure the program to blend an entire file (as it currently does), or blend one or two specific fields only. If a file has two or more individuals at the same address or company, but the phone number or postal code is missing on one record, this feature could save a great deal of time and effort. All in all, Dupe-Out is an excellent program especially for the price. This is one piece of software all mailing list managers should obtain.

FastAnswers

FastAnswers is the analysis portion of the Promark system. It produces bar charts, summarizes numeric columns, performs math and selection functions and creates custom reports. It also allows trend or "what-if" analysis based on the information in the Promark database files. Therefore, if you wish to analyze the response to a specific mailing, calculate the sales volume of a salespersons' activities, or estimate sales on a regional basis, FastAnswers is your program.

FastAnswers took me about an hour to get an overview of the system. However, the menu is not very self explanatory, and can be confusing to the first time user. This program manipulates and massages the data in your files, unfortunately, since the numeric fields are the weakest part of the entire Promark system, FastAnswers loses a great deal of its potential. The good news is that FastAnswers will recognize and work with Lotus 123, dBase II and dBase III files. This is where its immediate potential exists.

PostLink

PostLink is a stand alone module which can be either purchased as part of the Promark package, or separately. It gives one an awesome sense of power to have any postal code in Canada within about 3 seconds. Pricing varies depending on how many regions you buy. Get this one if you do alot with addresses. Even Canada Post is buying it. My only wish here was to have the whole thing run memory resident so that they are always at hand.

Is It For You?

Promark's package has some great strengths and can out perform many mailing list managers on the market. It does lack a full featured integrated word processor and calculating fields would really boost it as a product. If however your needs are straight forward, Promark has alot of power.

Pricing and System Requirements

IBM PC or compatible. ProMark: 128K $249, Dupe-Out: 192K $50, FastAnswers 256K $149, PostLink: 128K $49-$249. Hard Disk strongly recommended.

Tim Bramwell is President of Early Stages Marketing Group, which specializes in Mailing List Research, Rental and Management. 266-2262 or 681-5445.

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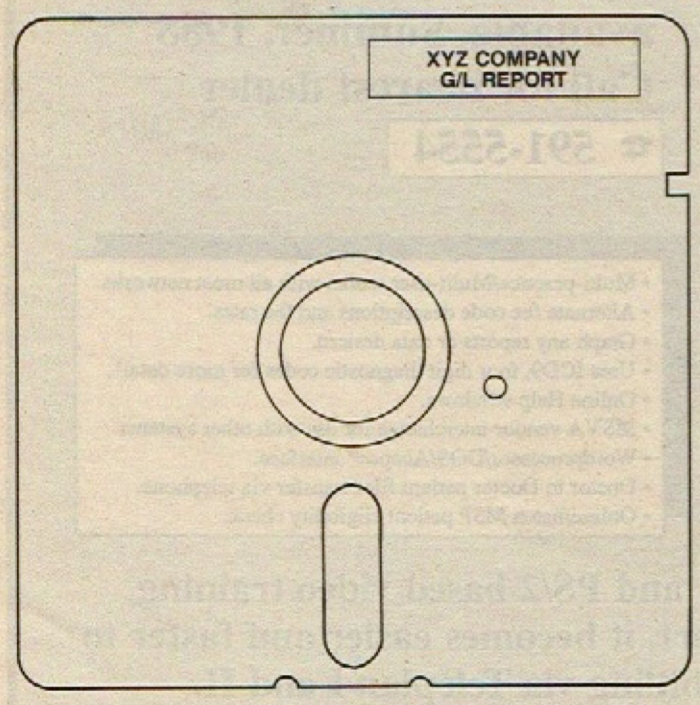

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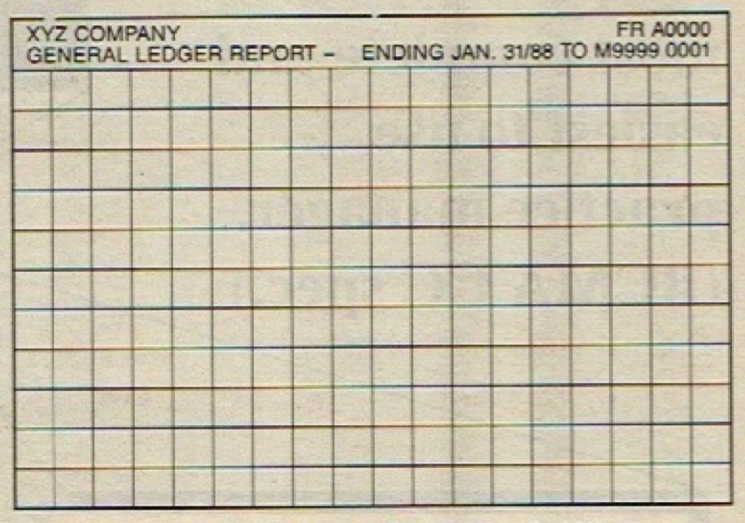

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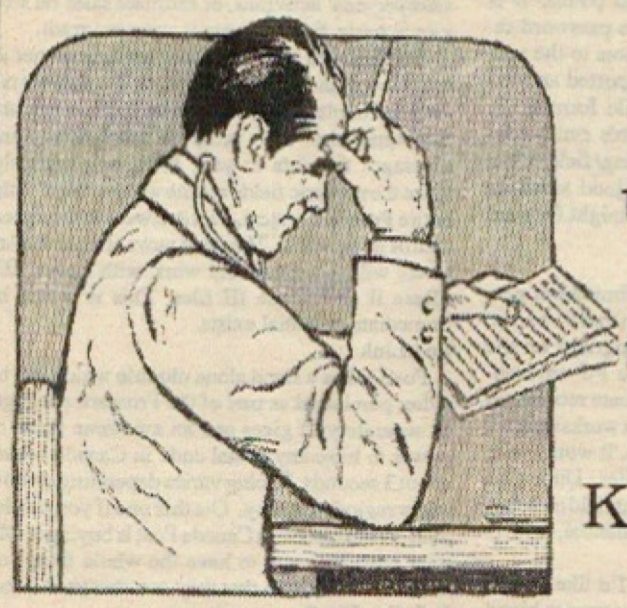

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MCC printed Feb.1988, MCC reserves the right to make changes to features, additions, versions. All features may not be as stated and are dependent upon the version of Teleplanner

Doctors Go On-Line:

Teleplan Software Survey

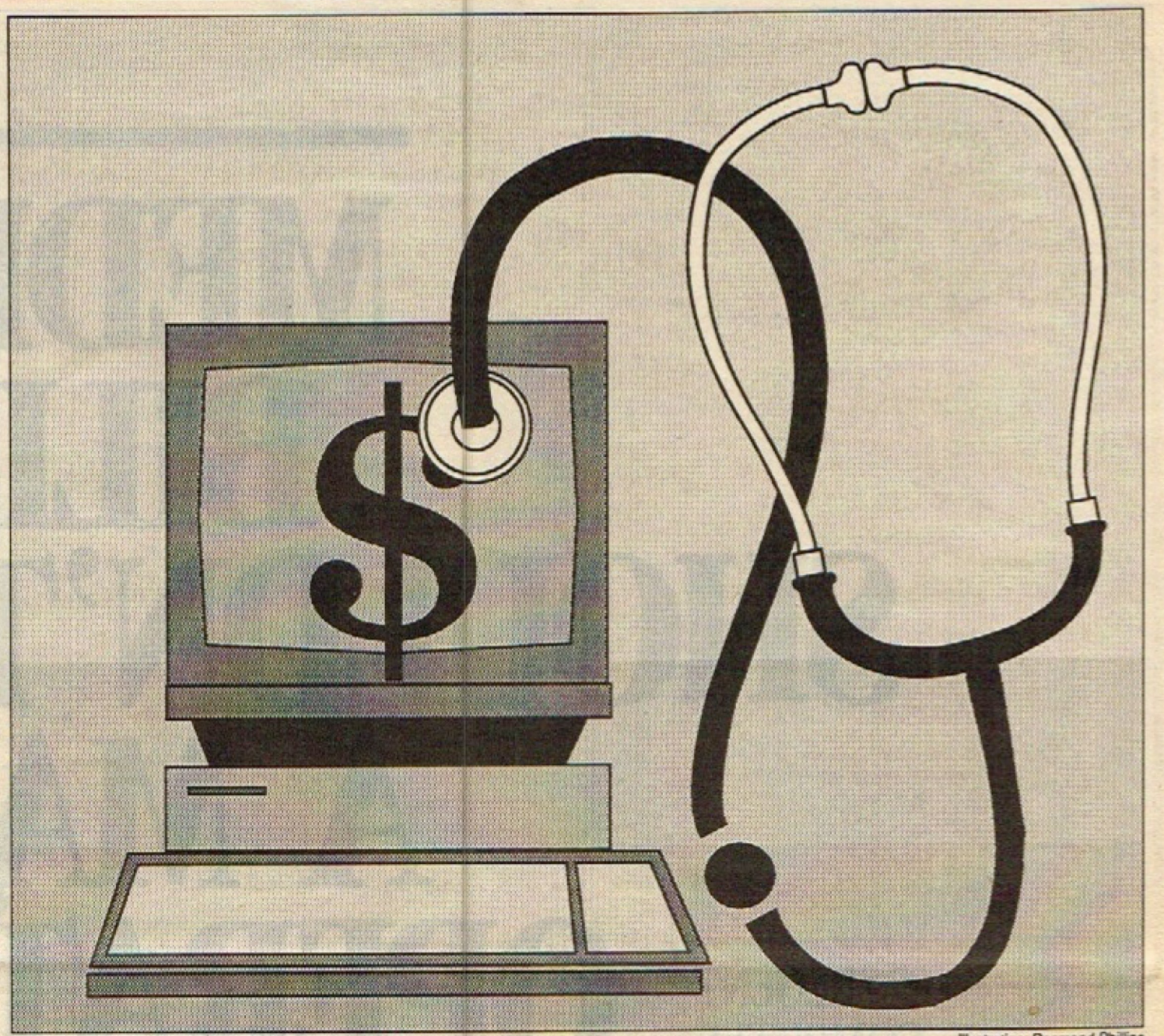

Illustration: Desmond Phillips

Medical Billing and Management Systems

An important transition is taking place in medical offices across British Columbia. Doctors are converting en masse from manual to computer based systems. This will increase their access to medical and financial information which could ultimately help improve practice management, researching capabilities and medical advise. However, many doctors are uncomfortable with the impending deadline imposed by the Ministry of Health.

All practitioners are required to submit MSP "bills in a computer readable format by January 1989". This means that doctors will have to either buy, lease or share a computer, or use a medical billing service bureau.

Up until June of this year, a doctor could purchase billing software which would communicate with MSP's Teleplan system. Now MSP is adding to the confusion by requiring that all newly installed billing software must be compatible with their recently developed Teleplan II system.

This comparison was designed to highlight some of the attributes of a number of the medical computer systems on the market. Since there were not any billing systems approved to work with Teleplan II at the time of comparison, the resulting table examines 8 Teleplan systems and 2 Teleplan II system pending approval. Most of the present medical software developers are planning to meet the new MSP requirements and maintain the features of their systems without increasing their prices. Therefore, the information contained in this table should remain relatively current.

Boss Systems Inc.
942 A Sherwood Avenue Coquitlam V3K 1A9
522-0661

AutoMatic Billing & Records (AMBR) is a comprehensive Medical billing package which can be used with or without the $375 appointment scheduler. This system has some unique time saving features. Among them is automatic rebilling which adjusts rejected claims according to preset parameters. General ledger and word processing functions are not integrated, but Real World Accounting and WordPerfect are supported by Boss separately.

The reporting capabilities are quite extensive. There are complete selection and sorting options to modify standard reports. A $1200 Intelligent Query program is also available for those who want to design their own specialized reports. This, however, is not usually necessary because Boss is often willing to make requested enhancements to the AMBR system.

There are two versions of AMBR. The single-user version runs on DOS and costs $3000. The multi-user version costs $5000 and runs on Xenix (which is $995). Note that AMBR is written in RM/COBOL 85, and this language must be purchased for $370 regardless of which version is used. There is also a 10% installation charge if the hardware is not purchased with the system. Training and 1 year of user support (with upgrades) are included in the price. Support can later be extended for 10% of the software price per year per site. Alternatively, this service can be provided on an hourly basis.

Canadian Mind Products (CMP) 1150 Homer Street Vancouver V6B 2X6 684-6529

Medics is an inexpensive, non-Teleplan medical billing program. The main focus is the user interface. It is very easy to operate and also has many error detection capabilities to prevent the user from entering incorrect data. The system also forces good working habits whenever possible. For example, claims may not be processed until a backup is performed.

CMP provides services such as computer consulting, programming, installation and training at the reasonable rate of $25 per hour. Pricing for Medics medical billing system is $500 which includes all necessary software, installation and 1 day of training.

Medics is the only system in this study which prints MSP billing cards instead of communicating through a modem to the Teleplan services. This is the least expensive alternative in this study. The billing card approach, however, will not be acceptable after this year, so CMP will be converting Medics to a Teleplan II compatible system - the cost will remain at $500.

Clinicom Systems #206 - 8449 Main Street Vancouver, B.C. V5X 3M3 325-5701

Billing-Plus is a practical medical billing system with appointment scheduling and patient recalling built in. Accounting and word processing are not integrated in the system but Clinicom does support Bedford Accounting and WordPerfect separately. While Billing-Plus is not as sophisticated as some of the other systems on the market, it is comprehensive and thoughtfully designed. There are several features to simplify data entry such as the use of mnemonics. These are easily remembered letter combinations which may be entered in place of the standard diagnosis codes and fee items. Other fields such as the doctor's name or the patient's city can be entered by pressing the first letter. The system is generally easy to learn and use.

Billing-Plus runs quickly on a PC compatible computer, so the expense of the more costly AT compatible can be avoided. The complete package including hardware, software, installation and training and 1 year of support is sold for $5950.00 ($3300.00 without hardware). Customer support consists of a toll free telephone help line, software updates, hardware preventive maintenance, emergency backup systems and new staff training. This costs $90.00 per month or $1000.00 per year.

Clinicom also provides an inexpensive billing service. The charge is 15 cents per claim, and the doctor is responsible for all drop offs and pickups. If the doctor decides to purchase Billing-Plus after using the billing service, Clinicom will transfer all pertinent data so that it doesn't have to be retyped.

Conceptrix 263-6484

Conceptrix's is a new company to this market and they have taken an innovative approach to pricing their system. They offer a site license with support for $50/ month. Hardware can be purchased from the vendor separately. The system can be customized to different types of practiciners. Charting and patient management are included in the package. In addition interfaces are available to popular accounting programs. Input is monitored by a number of error trapping routines. The program features pop down menus and a clean user interface suggesting a short learning curve for the program.

Dialog Medical Systems Inc. #220 - 1070 West Broadway Vancouver, B.C. V6H 1E7 737-0404

The Doctors System is a widely used program with great deal of speed and flexibility. There are many defaults and options which can be used to customize the system to suit the doctor's needs. Even the error messages can be turned off for experienced users. Mistakes can be easily corrected with various reversal functions such as merge. This function combines duplicate patient records without loosing claim information. Reports cannot be completely defined by the user, but there is a large variety of standard reports with many selection, sorting and formatting options. If a report is still not suitable, the data can be exported to a word processor or database for modification or to a spreadsheet for graphing.

The billing module can be purchased for $1995. The appointment scheduler and patient history can be added for $1000. A complete XT compatible system with a backup tape and all necessary software costs $6850. This includes installation, training and 1 year of support, but an additional $350 is charged for installation if the hardware is not purchased through Dialog. Extended support costs $300 per year plus $100 per doctor per year. The more expensive multi-user systems use the Xenix operating system, and they are Dialog's main strength. Dialog also sells and supports the WordPerfect, MS-Word, WordStar and Lyrix word processors.

MedCal Data Systems Ltd. #304 - 1682 West 7th Avenue Vancouver V6J 4S6 732-1134

Costar is a complete on-line charting program with billing and appointment scheduling capabilities. The charting allows doctors to store and manage all medical records in the computer system, and use them for research and analysis. Data can be selected according to diagnosis, prescription and test results to obtain diverse statistical reports. This easily generated information would make research much more practical, but it would also increase administration costs.

The billing capabilities are adequate but the user interface is quite antiquated. Data entry is performed at the bottom of the screen and text is rolled off the top of the screen as new information is displayed. While this method is very flexible, the data entry forms used in other systems are less prone to user error.

The Costar software costs $4950 including installation and 3 months of toll free telephone support. Training is $300 per day for 7 days. Extended

(Continues on page 18)

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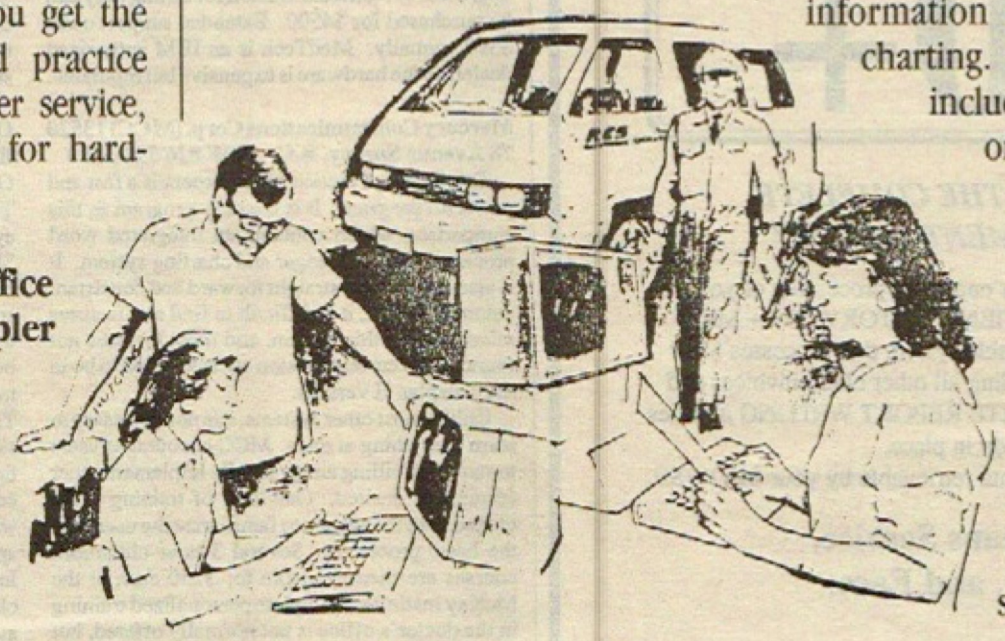

Regent Medical Office Assistance Senior provides the most comprehensive medical billing and medical office management software package available. You'll receive software to fill a full range of functions and reporting options, plus the training to make it work. This is an outstanding package, for complete access to financial or clinical information including patient charting. Training program includes classroom and on-site training, free phone support for a year, and more.

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(Teleplan Software Survey Cont'd from P.15)

claim can then be converted back to a MSP claim and accounting entries can be posted as well.

The complete software costs $6500, and it includes the Easywriter II word processor, installation, training, 1 year of support and unlimited upgrades. A restricted version for billing only can be purchased for $4500. Extended support costs $590 annually. MedTech is an IBM authorized dealer, so the hardware is expensive but reputable.

Mercury Communications Corp. (MCC) 13520 78 Avenue Surrey, B.C. V3W 8J6 591-5550

Teleplanner Practice Management is a fast and powerful program. It is the only program in this comparison which contains an integrated word processor, general ledger and charting system. It is also laid out in a straight forward and consistent manner. In fact, it is difficult to find any features missing from this system, and most features not found in the current version are scheduled to be in the Teleplan II version.

Unlike most other systems, it is not necessary to learn everything at once. MCC encourages users to start with billing and gradually implement other features as desired. One hour of training is included with the system to familiarize the user with the basic processes. Several 3 hour classroom courses are then available for $150 each at the McKay Institute. Complete personalized training in the doctor's office is not normally offered, but may be possible through a dealer.

Teleplanner costs $2500 for the first doctor plus $1000 for each additional doctor using the same system. Support is included for the first year, and a maximum of 2 collect calls will be accepted. Extended support is $250 per year per doctor. The Teleplan II version and subsequent updates will be provided at no extra charge. However, future enhancements to the system will cost $200.

The hardware costs shown in the MCC column of the table includes the suggested retail price of an AST Premium/286 computer. Note that dealers usually undercut the suggested retail price, and less expensive hardware may be purchased. Teleplanner, like most other systems, will run on any 100% compatible computer. However, they recommend either IBM or AST computers, and the use of other brands may affect the cost or level of support offered.

One Step Software Ltd. Box 1000 Fraser Lake, B.C. V3W 8J6 699-6558

One Step's Medical Billing Package is the only Teleplan II system compared in this article. Months ago this system was for billing only, and cost $895. Now, a report generator, an online charting history and several other features have been added, so the price has increased to $2000. One Step has decided not to develop an appointment scheduler because most doctors find that a manual appointment book is more efficient and flexible.

The system is easy to use and has several time saving features. Among them are definable function keys. This technique allows the user to set a commonly used value to each function key, and when one of these values is to be entered, only the appropriate function key need be pressed.

Installation, training and phone support are included in the price of the software. The support is available for the life of the system, but long distance calls are paid by the doctor. Enhancements are included for the first year and cost $200 annually thereafter.

Regent Computer Services Ltd. 5935, 132 Street Surrey, B.C. V3W 4K6 596-2858

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(Continues on following page)

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System										
Operating System	DOS/XENIX	DOS	DOS	DOS	DOS/XENIX	DOS/MUMPS	DOS/MUMPS	DOS	DOS	DOS
Teleplan Version	I	-	I	II	I	I	I	I	II	I
COSTS (SINGLE DOCTOR SYSTEM):										
Billing Only Software	-	-	-	-	1995	-	4500	-	-	1275.00
Full System Software	3375	500	3300	50/Month	2995	4950	6500	2500	2000.00	3500.00
Installation Only	300	0	0	-	350	0	0	0	0.00	0.00
Software & Hardware	8142	2900*	5950	3000*	6850	15429	11450	10333*	4500	7165.00*
Annual Support	300	100*	1000	600	400	720	590	250	200.00	-
3 Year Total	8742	3200*	7950	4200*	7650	17409	12630	10833*	4900	7165*
Computer Quoted	AT	XT	XT	XT	XT	AT	AT	AT	XT	XT
SUPPORT:										
Full Training Included	Yes	25.00/Hr	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Initial Support	1 Year	25.00/Hr	1 Year	Continuous	1 Year	3 Months	1 Year	1 Year	1 Year	1 Year
Toll Free Phone Support	No	No	800	800	Collect	Collect	Collect	2 Calls	No	800
Preventive Maintenance	No	25.00/Hr	Yes	Yes	Yes	No	Yes	Yes	No	Limited
Continued Upgrades	No	No	No	Yes	No	No	Yes	Limited	No	Yes
FEATURES:										
Patient Demographics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Teleplan Billing	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Appointment Scheduling	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes
Patient Recall	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Doctor Reminders	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Online Charts	No	No	No	Yes	No	Yes	No	Yes	Yes	Extra
Integrated General Ledger	No	No	No	No	No	No	Yes	Yes	No	No
Export to General Ledger	Yes	No	No	Yes	No	No	No	Yes	Limited	Yes
Export to Word Processor	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Querying Abilities	Yes	No	Limited	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Report Sorting & Format Options	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
User Defined Reports	Extra	No	No	Yes	No	Yes	No	Yes	Yes	Yes
Graphs	No	Yes	No	No	No	Extra	Yes	Yes	No	Yes
Multiple Doctors	Yes	Yes	Yes	Yes	Extra	Yes	Yes	Extra	Yes	Yes
Can Upgrade to Multi-User	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Network Compatible	Yes	No	No	Planned	Yes	Yes	No	Limited	Yes	Yes
Audit Trail	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Menu Driven	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Help Screens or Windows	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BACKGROUND:										
BCMACC Approved	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Pending	Yes
First Installation	1985	1982	1982	1987	1977	1978	1980	1986	1987	1985
Number of Sites Installed	>15	4	>14	>5	>60	>5	>80	>6	>40	>100
SERVICE BUREAU:										
Billing Service Cost/Claim	3rd Party	-	0.15	-	0.22	-	-	Planned	0.20	0.28
Claim Delivery Included	-	-	No	-	1 Way	-	-	-	No	Yes
Data Transferable	Yes	-	Yes	-	Yes	-	-	-	Yes	Yes

*Estimate: Cost may vary with computer purchased.

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(Teleplan Continued from previous page)

Sampler is a simplified billing program which allows basic data entry at the practitioners office before transmission of data to Regent for further processing. This software and service combination costs $200 plus $50 per month, and it does not require a hard disk drive on the computer. The M.O.A. Junior is a billing and receivables software package costing $1275. It performs billing, maintains a patient visit history and can integrate with an ACCPAC General Ledger for the physician's accounting needs. Finally the M.O.A. Senior is a complete medical office management system providing all the functions of the Junior package plus appointment scheduling, graphing and user defined reporting. This system is available for $3500. All of these software packages come with installation, a training video, class and/or on-site training, 3 years of software upgrades and 1 year of phone support (via 800 line).

A major consideration when designing the billing software was the speed of data entry. Regent advertises that 467 claims can be entered in 1 hour on any of the M.O.A. systems. This means that less than 13 minutes would be spent entering 100 claims under ideal circumstances.

Notes on Accompanying Table

Please note that this comparison should not be used as a sole source of information. Many items and categories in the table require further explanation. However, it can assist with determining which features are available. The doctor must then decide which features are important and whether or not a computer system is desirable. In order to make a rational decision, the suitable alternatives should be investigated further.

Brad Froese is a computer consultant for ASSISTEMS Consulting Inc. He specializes in medical billing systems and provides selection advice. For a more detailed description of his analysis, contact him at 430-3463, or write to #605 - 4957 Newton Street, Burnaby, B.C. V5H 4B9. 591-5550
(Conceptrix overview by K.S. Khalsa)

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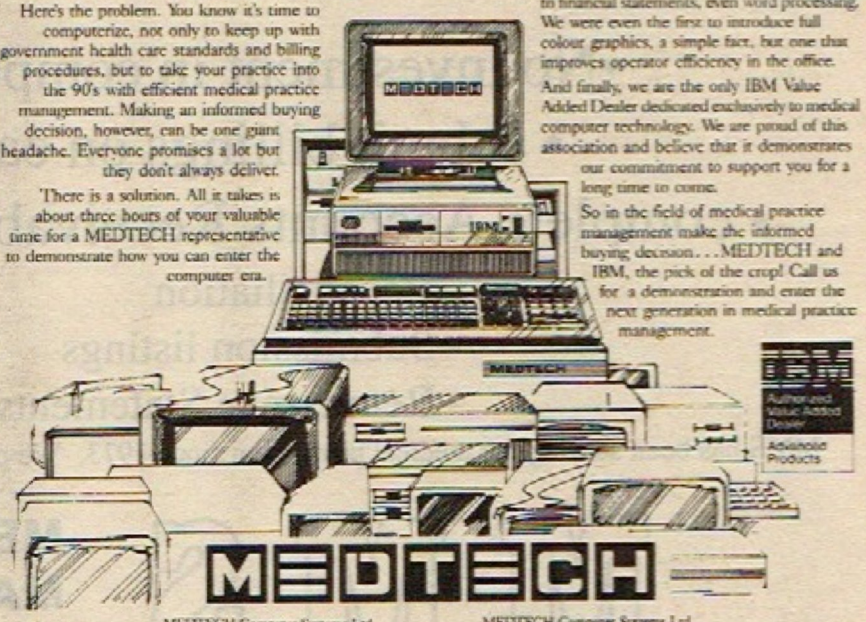

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Aldus's FREEHAND

New High End Drawing Program Gives *Illustrator* a Run For The Money

Two banners created in FreeHand by McKay Institute Desktop Publishing students. The one on the right was the winner .

A Dozen Good Reasons to give Freehand a try!

Desktop Publishers have simple straightforward requirements for a graphic program: it must be easy-to-learn, easy-to-use, easy-to-modify artwork, and capable of producing high quality results. A year ago, Adobe introduced Illustrator, and one of these requirements was instantly met. In no time we were spoiled by the power and presentation of its Postscript generated graphics. But, as magnificent as the final artwork was, Illustrator was not an easy program to learn, and only after practice, patience and persistence did it become somewhat easy-to-use.

A year later, Aldus introduces Freehand for Macintosh computers. I took the plunge, and jumped right in, only to discover that Freehand was nowhere near as intimidating as I had expected. Many of the tools and keyboard commands function similarly to Illustrator, and like Cricket Draw, double-clicking on anything gives you a dialog box. There are some definite pluses about this program, but it also has a few shortcomings. Let's begin with the pluses.

Free Hand Tool: First, Freehand's namesake...the Freehand tool. Trace over any path or template image with this tool, and the program automatically sets points for you. That certainly falls under the easy-to-use category. The drawback is, it can set too many points, or incorrect points. No problem, double-click on the point, see a dialog box and change the problem point to the kind you want. Points are similar to dots in a "connect-the-dot" picture. You set the dots, and the program connects them. There are curve dots (creating curved lines, corner dots (connecting straight lines to straight lines), and connector dots (connecting curved lines to straight lines). Freehand provides a separate tool for each of these, allowing the user to simply click the mouse to set the appropriate point.

Many Keyboard Commands Same as *Illustrator:* A second plus lies in the keyboard commands. Enlarging, reducing, using the command key and the grabber hand with any tool are the same in Freehand as in Illustrator. *Hurray, one less thing to learn.*

Love Those Radial Fills: The third plus about Freehand is its ability to create radial and graduated fill patterns. This is much less tedious than the process of creating multiple shapes and filling them with different gray values, as was done in Illustrator to achieve the gradation of grays. *Warning! Radial fill patterns take much longer to print and numerous radial fills in one illustration can create a real backlog on the printer.*

Extra Prining Options: Thumbs up to the fourth plus. Being able to specify screen angles and lines per inch could make Freehand a very valuable tool for taking some of the work out of preparing negatives for printing . This is available on all fill patterns, within the fill dialog box. Look for the "Special" button.

Work in Preview Mode: The fifth plus allows the user to work on the drawing in either Preview mode or Keyline mode. This is a definite advantage over the limitation in Illustrator to work only in Keyline. This can slow down screen performance however.

Multi-Layered Documents: Layering takes the sixth plus position. Imagine the pleasure of working on a complex, multi-layered document without having to use the "send-to-back" command fifty times to re-position items in space. Layering should work particularly well with architectural drawings, scientific and medical illustrations, etc.*Note: anything pasted to Layer "0" becomes a tem-*

(Continues on following page)

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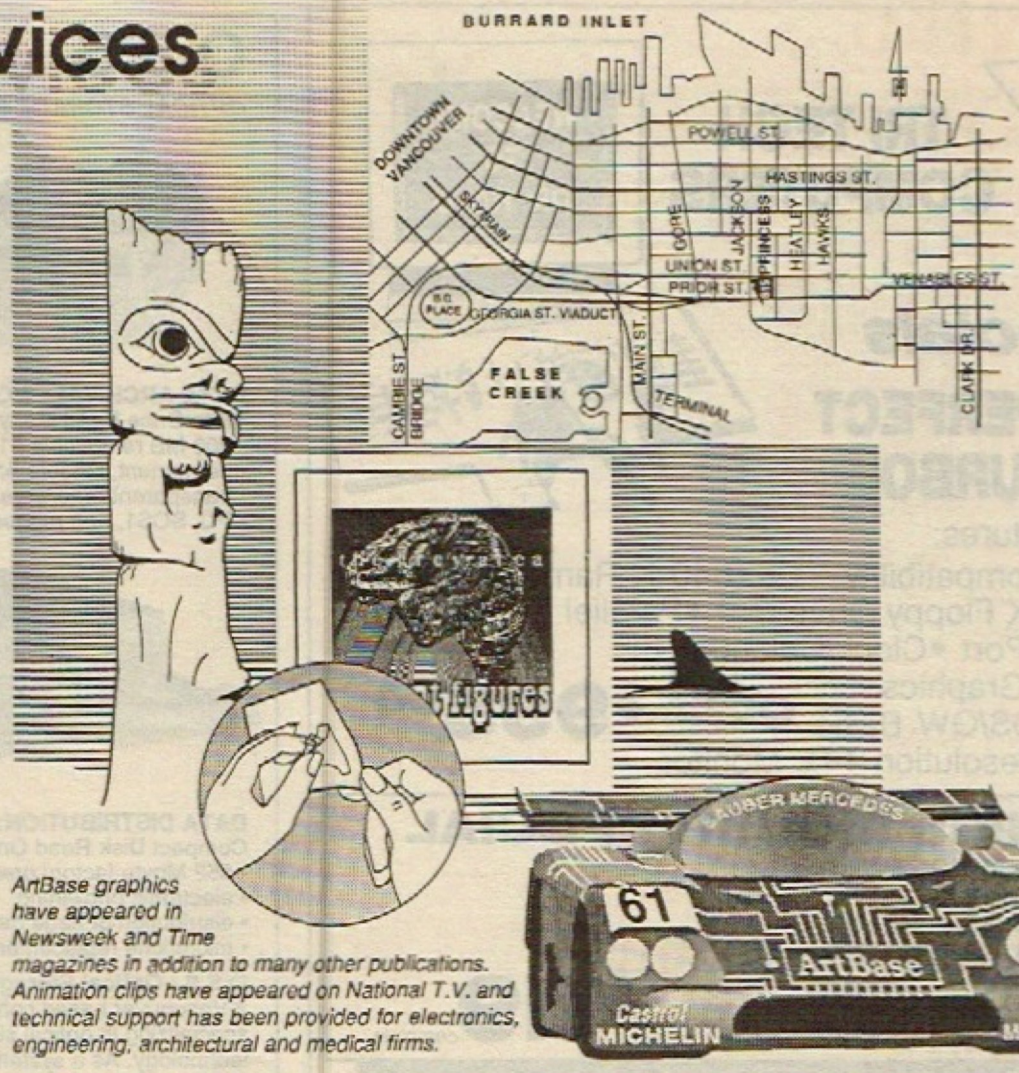

ArtBase graphics have appeared in Newsweek and Time magazines in addition to many other publications. Animation clips have appeared on National T.V. and technical support has been provided for electronics, engineering, architectural and medical firms.

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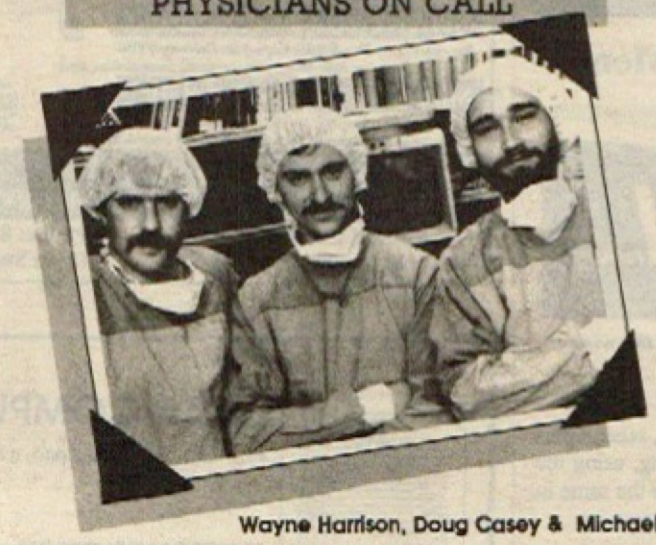

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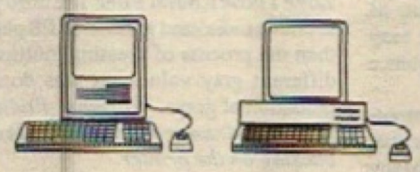

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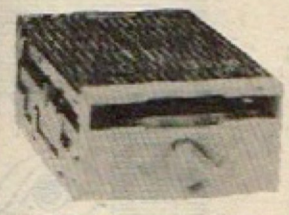

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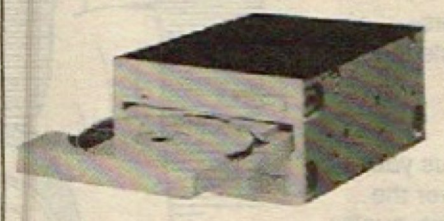

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(Freehand Article continues from P.21)

plate. Very handy for specially created grids or imported Paint, Draw, and EPSF format documents. However, it is very important to make the "0" layer inactive when working and it is this user's view that this should be a default setting.

Handy Information Bar: The seventh plus goes to the Information Bar. Located just under the title bar, Freehand gives the user a line of information. This indicates which layer is currently active, what location the mouse is, how large a shape is, angle of rotation, and so on, and so forth. Once you start observing the change of information you're hooked.

Clipping Paths: Eight pluses later brings us to clipping paths. At some point, every designer wants to create their own fill pattern for a shape, but even when we can, it's difficult to create the fill to match the shape. Presto, chango, and you have a rain pattern inside a weather map area, or a designer logo in the shape of a T-shirt. Difficult? Hardly...just create the pattern and the shape, and paste one inside the other.

Wrapping Text to a Curve: It's the ninth plus...wrapping text to a shape. It's a breeze in Freehand. Create the text, create the path, and join elements. To get the text in a particular location on the path simply rotate the path.

Bleeding Boxes: I'm now up to the tenth plus. In the document setup box, the first dialog box you see when creating a new document, there are some advantageous print options. You can create a bleed area outside your imaging area, in addition to having cropmarks, registration marks, color separation names, as well as file name and date print when you output to a LaserWriter or Linotronic.

Library of Pattern Fills: It's the eleventh plus. This one's takes a little more effort to learn but could be well worth it. Freehand allows you to create style libraries for fill patterns, colors, and line patterns. That means once, you create a particular fill pattern, it's available to use again. You can also edit your styles at any time, and create short Postscript programs as part of the style library.

Security Defined: 8 Un-does & 8 Re-does: Well, it's a dozen. Remember the marvelous "undo" feature...Freehand provides you with eight undoes and redoes. You can actually go eight steps back in your work. If that doesn't take the cake, you can even redo all eight steps.

The Downside

Now, before you throw Illustrator in the trash, let's take a look at some of Freehand's shortcomings.

A Few Text Features Missing: To begin with, there are shortcomings in the text controls. There are lots of positive features in working with text in Freehand, including kerning between specific letter pairs, on-screen adjustment of letter spacing and word spacing, changing typefaces, styles and sizes within one block of text, etc. However, I found text easier to modify and work with in Illustrator. I could paint text with any level of gray and outline it with any pattern and line thickness I wanted. In addition, I could overlay type on top of itself to create special effects....with ease. Not so in Freehand—the extensive control is missing.

The Learning Curve: Remember the requirements for graphic software? While, although somewhat easier-to-learn than Illustrator, Freehand is still a tricky program to master, especially the Combination tool and figuring out how to use the transformation tools accurately. For the new user, it is especially important to learn that you can only fill a path that is closed. (Check it by double-clicking on the object.)

Conclusion: Buy Both

In summary, I would have to say that Freehand offers a variety of things that Illustrator does not. Which reminds me, don't wait too long, because Adobe has just released its new Illustrator 88. This program has an automatic trace tool, full Pantone color capabilities, a wonderful blend tool that can metamorphose a letter S into a swan with just a couple of clicks of the mouse, and.....well that's another story.

Mary Kletchko teaches 12 week intensive courses in Desktop Publishing at McKay Institute. 2151 Burrard St., Vancouver V6J 3H7 736-7221

Micrografx Designer

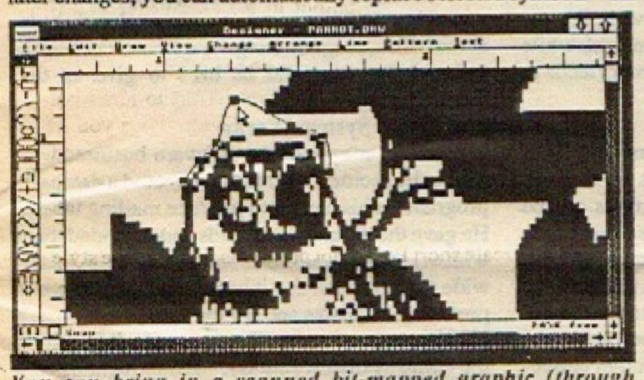
PC Users Finally Get Sophisticated Technical Illustration Program

Micrografx Designer

DOS users have been waiting years for sophisticated drawing packages like those found on the Macintosh. Programs such as Cricket Draw, Adobe Illustrator, Aldus FreeHand have left PC users in the dust. Finally, Micrografx leads the new wave with Designer. At $795, this high-end drawing package runs under Windows, is compatible with PageMaker, and offers a complete range of tools for the serious illustrator. But don't you rush out and buy Designer if you have modest graphics needs. The program is slow running under Windows 2.0 on a 286 machine without disk caching. You're paying a lot for tools you may never need. And it's not yet compatible with Ventura.

What It's Got

Micrografx claims that Designer combines the best of the CAD environment with the finesse of the graphic arts world. It's a drawing package (using vector lines), not a paint package (using bit mapped images), so it delivers smooth curves and high resolution no matter how you manipulate the drawing. It's similar to a CAD package but with an intuitive mouse-driven interface, bit map fill patterns, and PostScript-compatible fonts. What's more, Designer has features not available in the current batch of low-end drawing programs. You can draw complex curves, parabolas, and polylines. And once you've finished drawing an object, you can reshape it by moving individual points or you can smooth the jagged edges. Objects and text can be rotated in .1 degree increments. You can also connect separate symbols into a closed object that you can then fill with a pattern. Technical illustrators will find Designer's other advanced features useful. You can assign symbol ID names to individual objects and store them in a library, so you can easily insert them in other drawings. If you produce a complex drawing and the object later changes, you can automatically replace selected symbols with



You can bring in a scanned bit-mapped graphic (through Windows' Clipboard) and trace over it with Designer's multi-point curves. Then you can reshape the curves by moving the points.

new ones. And you can arrange your drawings into layers (up to 64), so you can work on different parts of a complicated drawing without disturbing the other elements; the layers also let you print spot color overlays.

The Best Part

But that's not all. You can scan in an object, such as a logo, bring it into Designer through Windows' clipboard, and trace over it to create a line art version. You can choose gray scales in 1% increments, create your own fill patterns, and mix up to 3.6 million custom colors. Designer has no problem handling a wide range of printers and plotters, including PostScript devices.

A Slick Package

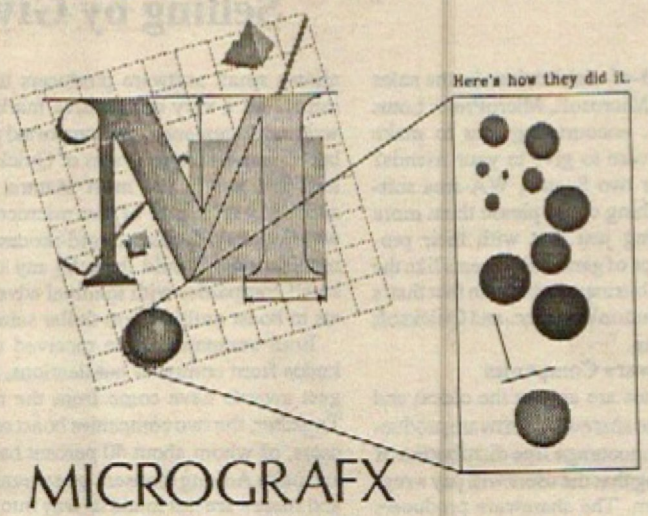
It looks like Micrografx intends it to be around for a long time. They've gone all the way with glossy packaging, a product newsletter, extended technical support, a rich library of optional clip-art even custom T-shirts sporting their color logo. They're already coming out with Version 1.2, which promises a new PostScript driver, conversion to Windows Metafile Format, and an improved text feature that displays the text directly on the drawing surface as you type it.

What It Hasn't Got

Ventura users will be disappointed with the first release: until Micrografx comes out with its Convert Plus program (promised for August 1988, price unknown), you won't be able to pull drawings into Ventura easily. Micrografx told me that I could get a drawing into Ventura right now by choosing a PostScript or HP plotter and printing the drawing to a file; my attempts failed with both types of

"It's like driving a pickup truck instead of a sports car."

printer. When Convert Plus is available, however, you should be able to convert between these formats: CGM, DXF, EPS, GEM, PCX, TIFF, and MacDraw. If your system is a mere AT 286, with 640K RAM and an EGA monitor, you'll be annoyed at the slow screen refresh. In a multi-layered drawing, you have to wait while the screen draws each and every curve . . . one after the other. Sure,



Designer doesn't do graduated shading, so you have to layer elements on top of each other to achieve a variegated effect.

you can exit or change views while the screen is re-drawing, but if you actually want to work on the drawing, you have to wait until it's completely re-drawn before you can touch it.

Who Needs It?

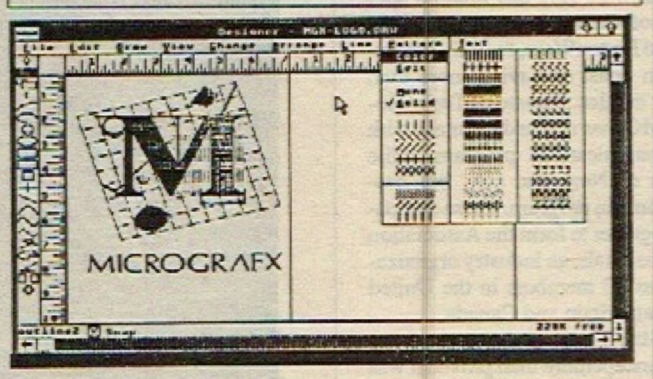
If you're a graphic artist or technical illustrator who's restricted to the DOS environment, you'll probably be thrilled with this package. You can draw to your heart's content, building up layer upon layer to create the most elaborate illustrations. That's what Micrografx did to create their sample drawings; when I picked apart the Micrografx logo, for example, I saw just how many elements they piled onto each other. But if illustrating is your sideline and you need to produce quick drawings, you may find that Designer is overkill. A lot of us need just a new version of GEM Draw Plus, with variable rotation and advanced curve tools at a low price.

What It All Means

The DOS world is entering a new phase of graphics. We'll soon see a number of packages, each solving a different graphics problem. But make sure you shop carefully before buying. If you don't need a high-end package, don't buy Designer; keep your eyes peeled for the one that suits your needs and budget. As for me, I'll keep looking I've already got my eye on Mass-11 Draw and Cricket Draw for the PC.

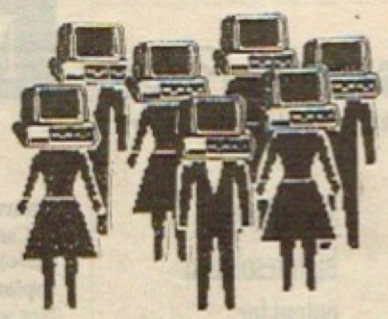
A Macintosh Illustrator illustrator looks at Designer.

Preston Denny, a graphic designer with Kent Allan Design Group, uses Adobe Illustrator for generating logos, handling typography, and producing technical drawings. Here's what he says about Designer. **The Good News:** The program is packed with features and is unique in the way it combines drawing tools with CAD conventions, such as line dimensioning and drawing to scale. Such features added to a Mac drawing program would make a super package. **The Bad News:** Designer's drawing tools are large and clumsy, lacking the fine control Mac users depend on. The constant screen refresh is annoying. When you're scrolling, you lose sight of where you are; when you try to select an object that's placed behind others, you never know if you've got it for sure; and when you reshape a curve, the nodes disappear and it flickers as you move it. In short, professional designers would find Designer's imprecise touch frustrating. Although Designer offers some curve editing, it doesn't match Illustrator's ability to adjust the curve between two nodes. Above all, Designer doesn't offer typography control, such as kerning and proportionally scaling text. When I asked Preston to sum up his impression of Designer, he said, "It's like driving a pickup truck instead of a sports car."



Designer offers a whole raft of tools and fill patterns for the professional illustrator.

Sara Makarenko is a technical writer with OM Technical Communications. This article was originally written for and published in Micro Page the Newsletter of the Vancouver Electronic Publishing Association, Station C, PO Box 24776 Vancouver B.C. V5T 4E9 (604) 875-0677



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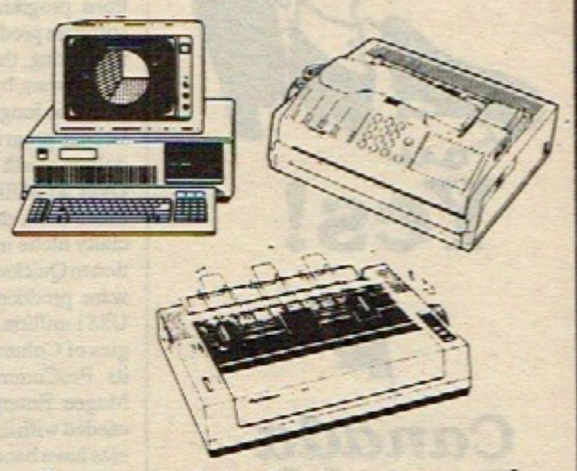

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Make Your Fortune on Shareware

Selling by Giving

Shareware: 'Word-of-disk' drives in the sales

Can you imagine Microsoft, MicroPro or Lotus Development Corp. encouraging you to make copies of their software to give to your friends? Not very likely. For two Seattle, WA-area software producers, nothing could please them more than customers doing just that with their programs. While this type of generosity seems like the fast way to go out of business, it isn't. In fact that's how the owners of ButtonWare Inc. and Quicksoft Inc. make their living.

Two Oldest Shareware Companies

The two companies are among the oldest and most successful of the shareware software producers, companies that encourage free distribution of their software, hoping that the users will pay a registration fee in return. The shareware producers hold out incentives for the users to register. In return for his check, the customer receives a printed program manual, the latest version of the software and access to support services, all for under US$100. "Shareware on the surface doesn't look like it should work, but it does," says Quicksoft owner Bob Wallace.

Unlike public-domain software, which usually comes free from electronic bulletin boards and computer clubs, shareware producers are in business to sell their products. They encourage each user to evaluate the program, and if the user likes it, to pay the shareware company. And so far there's a lot of users who like shareware products; both Quicksoft and Buttonware are among four shareware producers whose annual sales exceeded US$1 million during 1987.

Carrot Better Than The Stick

Even though they wield no big sticks to force users to pay, the two companies dangle a lot of carrots in front of potential customers. Both Quicksoft and ButtonWare offer customers who register the latest version of the program, a printed manual and telephone support services to answer questions about operating the software.

While many shareware programs lack some of the features and sophistication of a number of best-selling computer software products, most shareware programs more than meet the needs of their users, and it's hard to beat their price. Quicksoft sells its PC-Write word-processing program for US$89 while ButtonWare retails its PC-File program. for US$69.95. In comparison, Microsoft Word sells for over US$230 at discount stores while Ashton-Tate's dBase III sells for over US$350.

The shareware idea was devised in the early 1980s by the late Andrew Fluegelman of Tiburton, CA, the developer of the PC-Talk communications program. Fluegelman felt it was time for software producers to recognize what already was happening, the unauthorized copying and sharing of software by computer owners, many of whom could no longer justify spending hundreds of dollars on programs that simply consisted of a few dollars worth of disks and US$10 manuals.

Over $1 Million in Sales

Since then, the shareware idea has found a specialty niche in the software industry and, in addition to Quicksoft and ButtonWare, two other shareware producers can boast of having more than US$1 million a year in sales. Datastorm Technologies of Columbia, MO, has reached the mark with its ProComm communications program while Magee Enterprises of Norcross, GA, has succeeded with its Automenu program. These companies have banded together to form the Association of Shareware Professionals, an industry organization that already has 90 members in the United States, France, Great Britain and Canada.

Concept Here to Stay

The shareware concept more than proved it was here to stay when in 1987 Osborne-McGraw-Hill published The Shareware Book, a computer manual dedicated to the use of PC-Talk, PC-File and PC-Write.

At first glance, the shareware concept seems like some hippy- dippy idea left over from the 1960s as it seems to push the honor system beyond the limit. But a closer look shows that shareware allows small software producers to make a big impact on a very competitive market with well-written, documented and supported products. The bread-and-butter programs of Quicksoft and ButtonWare are in the most mature, if not over-supplied, segments of the microcomputer software industry: database, word-processing and communications. Would there be any other way for small companies with minimal advertising budgets to boast multimillion-dollar sales?

Both companies have received their share of kudos from computer publications, but their biggest awards have come from the market place. Together, the two companies boast some 1 million users, of whom about 40 percent have registered and paid. Among the users are several universities, and shareware has found its way into the offices of The Boeing Co., IBM and the Los Angeles Times. Such large corporations usually purchase shareware through on-site licensing agreements.

Can't Avoid Marketing

While some software writers have attempted to use the shareware concept as a way simply to write programs and wait for the checks to arrive in the mail, Wallace of Quicksoft says it isn't that easy. "Shareware isn't a way of avoiding marketing, it's another form of marketing," he says.

"Software has a personality to it," Wallace adds. "The evaluation period is critical because most people feel the need to test- drive it. For the user, there is no pressure and little or no risk while evaluating it. What's good for consumers tends to succeed."

The Secret is Support

Adds Jim Button, founder of ButtonWare: "The secret to success in this business is in support. Word-processing and database programs can be fairly complicated. People tend to use these programs frequently and get intimately involved with them. They feel a need to establish a relationship with the vendor. But shareware works for several other reasons. There's a significant percentage of people who are honest. But we have other enticements. There's the manual, which is impractical to photocopy; we ship out (to the customer) the latest version of the program; and we provide technical support. We also send out automatic notification of updates."

But Button, whose abundance of self-confidence makes him a natural salesman, has left nothing to chance. He has encouraged about 350 computer bulletin boards and computer clubs across the United States to carry his programs, which also include spreadsheet, communications and word-processing software, and make them available to members. The concept works because of word-of-mouth publicity. This is a vastly superior form of advertising and it costs nothing. With good 'word-of-disk,' the demand can snowball.

What Kind of Programs Won't It Work For?

But the shareware concept has its limitations and will not work with all types of programs. According to Wallace, computer game software is difficult to market as shareware because it requires little support and documentation. "If the program is too complicated, it might not work as shareware," he says. Adds Button: "Desktop publishing might work but something like an accounting package would eat you alive in support."

Besides being shareware pioneers, both Wallace and Button were veterans of major computer companies before going into business for themselves. Wallace, who earned a master's degree in science from the University of Washington, was the eighth employee to join Microsoft, where he began working in 1983, becoming the product designer and manager of MS-Pascal. Button, on the other hand, joined IBM as a systems engineer in 1967 after abandoning the thought of becoming a sociology professor.

When Wallace struck out on his own, he started Quicksoft with US$10,000. "I really wanted to be in control and do something on my own. At Microsoft, I really learned how important market share is. If you have a lot of users the software will be (more successful)."

Quicksoft's sales hit US$17,000 the first year, and by 1984 had grown to US$290,000. In 1987, the company reached the US$2 million mark and had 20 employees. Wallace spends weekdays managing the company, but most weekends he is at the office, programming. "I'd like to cut back a little bit, but it would be hard to give up the programming."

The Honor System Works

Button's entry into the software business was almost by accident. In 1983, he created a database program for his church to produce mailing labels. He gave the program to friends and provided them with occasional updates. Soon the database had such wide a distribution that it became too expensive to provide the updates and Button started to charge a US$25 registration fee. Button's wife didn't think the honor system would fly. "She thought I was a foolish old man," he says.

From less than US$2,000 in 1983, the company's sales grew to about US$2.5 million in 1987; ButtonWare now has 18 employees. "Pretty soon I was making more money from my hobby than I was from my job with IBM and I left in 1984," Button explains. "I couldn't do both, there just weren't enough hours in the day".

This article was reprinted with permission from Northwest High Tech 1988: A Guide to the Computer Industry of the Pacific Northwest and British Columbia which is available in several local bookstores. For more information, call (604) 251-7675. Resolution Business Press (1988) Bellevue, Wash.

NorthWest High Tech 1988

A Guide to the Computer Industry of the Pacific Northwest and British Columbia

(185 pages) by John Spiker and Karen Strudwick. Resolution Business Press recently published a new book that includes sections on who's hiring, who's expanding, plans and projections for 1988 and how to get listed on the Vancouver Stock Exchange. This useful book includes excerpts from the Corum report on the BC software industry. Also included is an article on selling software through Shareware. (see above) Available directly from the publisher at 820-153rd Ave N.E. #C-201 Bellevue, WA USA 98007 or through local bookstores for $14.95. The directory of about 400 companies is also available in ASCII format on disk complete with addresses, type of business, brief product descriptions and their expansion plans for 1988. Price on the disk is $49.95.

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Office Automation

Integrating Word Processing for Small to Medium Law Offices

Things to Consider in Moving from a Manual System to Computers in a Law Office (or any other type of office for that matter).

Introduction

In the legal profession, IT'S A PAPER WAR and until now it has often been won by the side with the biggest budget [large law firms] using the most powerful word processing device [the COMPUTER]. Only now are the smaller law firms beginning to feel the pressure to modernize their paper production because many times the real edge goes to the side that can process information most effectively and efficiently. Luckily, with the recent advances in computer technology, what used to be a impractical fantasy for most small law firms can now be a technical reality. The introduction of the micro-computer and associated software has made computerization a feasible economic probability.

Even though computer prices have dropped 60% in the last 3 years, when computerization is being considered, it often becomes part of an overall plan to improve the total office environment. Unfortunately, the other costs can completely distort the actual computerization cost and many times the entire project is put on hold. Since the computer and its associated equipment [hardware and software] is just another type of business machine that can be adapted to almost any existing situation, computerization should be considered a separate project.

Computer Hardware

The computer [motherboard, power supply, disk drives, controller cards, monitor, keyboard, etc] is the main component of computerization. Choosing the right computer is essential to achieving good word processing capabilities. The computer should have a fast CPU [central processing unit], large random access memory area, adequate hard storage space, high resolution monitor, and professionally styled keyboard as outlined in the following list minimum features: fast XT TURBO with a minimum of 640 K Ram internal memory, a 30 megabyte hard-drive, preferably with higher density 3 1/2 " 720 K floppy drive, a TTL monochrome monitor and an enhanced AT style keyboard

Printers

Printing is the other important consideration when thinking about computerization because until most documents are printed, they are of little value. 24-PIN DOT MATRIX printers are very close to letter quality and are acceptable to most law firms. Because speed and noise quickly become a factor, laser printers are generally chosen. They are almost silent [similar to a copy machine] and at least 10X faster than a dot matrix.

For the convenience of the secretaries, a printer with software addressable dual-bins is preferrable because of the frequency of using letterhead. The selected printer should also have a large buffer area so a less complicated, less expensive non-buffered print-sharing device can be used.

Build in a Certain Amount of Redundancy

One of the most important problems to be addressed in computerization is protection: What happens if there is hardware trouble? This can be a nightmare with mainframes into which many terminals are connected. When something goes wrong, the whole system dies and everyone is stopped until the problem is solved.

Legal secretaries work mostly on their own and very little if any information has to be shared. Thus, separate work stations can be set up for each secretary and if one work station does go down it does not have any effect on the others. It may then require some sharing of computer time, until the problem has been found and fixed.

It is not economically unreasonable to consider 2 printers in the original installation. Each computer is connected to both printers using an A-B SWITCH. If one printer does happen to malfunction, then with the turn of a switch the other one is addressed. Although there is double the initial investment, it is obvious that if the work load is being shared by 2 printers that they would last twice as long.

Word Processing Software

The WORD PROCESSING SYSTEM consists of both the hardware [computer, printer, etc] and the software [word processing program]. The software chosen should be easy to learn, easy to use, have easy file handling features [retrieving, copying, deleting, creating, accessing and removing storage areas, etc.] that make it easy to organize and arrange legal matters and to structure simple procedures for back-up. Naming directories using a matter number [e.g. ICBC1043, etc.] make it easy to separate one matter from another and copy routines made it simple to backup on an outside diskette. The WPP should feature:- tabbing and indenting, boldface and underline, centering and moving, automatic paragraphing, spell checker/thesaurus, portrait and landscape - merging and more. Most important though, is to chose a popular word processing program, one that is being used by others in the profession. A WPP that has been tested, one that new and temporary staff are likely to be familiar with. WordPerfect 4.2or 5.0 are very popular in the law profession but there are other good ones such as MicroSoft WORD, Display Writer, etc.

Training and Instruction

No matter how good the instructor, how modern the equipment, or how intelligent the student, no one can learn enough in "a one day word processing seminar" to feel totally comfortable about starting real work immediately. Often such a rush course will only leave the student disturbed, confused and intimidated. The introduction to the word-processor should be a slow, structured process to point out to the student the similarities between a typewriter and computer and then to discuss the differences. Then with the use of videos, specially selected books, on site tutorials and individual instruction in leisurely intervals gradually familiarize the student [legal secretaries] with the primary mechanisms of the program. The most important outcome of the instruction process is for them to have an understanding that will make them feel secure enough to solve their own problems. The next step is to set aside the morning [after the weekend equipment installation] for reviewing essential aspects and beginning and continuing on with real work.

The Conversion Process

Changing over from one system of doing things to another can be the most frightening both for the lawyers and the secretaries. They are going from a routine that they both understood, to one that seems foreign to both. Thus, the conversion must be handled very carefully if problems are to be avoided. It must be a slow, steady, sensitive process where lots of reassurance is provided.

On site supervision for the first few days is a must if there is to be a smooth transition. Some people will catch on faster than others but all must feel as secure as possible. Without someone on hand, solving problems immediately, panic could set in and chaos would result. A truly concerned dealer will be there until not needed any more.

A good approach is to allow office personnel to go back to their typewriter if they need to for a rush job. That alternative relaxes many anxious participants nerves. Within a few days, supervision can be phased out dramatically as the office personnel become more capable of solving their own problems. If handled properly, with honest consideration for staff feelings, the conversion should be a painless and rewarding experience.

Implementation Schedule

Two weeks is recommended to allow everyone in the office to familiarize themselves with the new equipment and software. SCHEDULE [2 weeks +]

Support

Another important aspect of any installation is support: is this company going to be around it you need them. If you need them and they aren't around, will it really matter. The best solution is not be dependant upon any single company or supplier, etc. Generic compatible computers can be fixed anywhere and good quality Word Processors have their own "hot lines".

Warranty

Warranty is important and reputable suppliers offer at least 1 year protection on all of their equipment. The fact is that a machine will usually fail when it is first started up, within the first few weeks, or it will run trouble free for many years [if it is not abused]. Extended warranties can be great protection but they can also be extremely costly, so if the cost is worth the risk, then pay the price.

Maintenance

Maintenance can be a source of peace but many times may not be cost effective. Try to determine, once again, if the price is worth the risk. It may be more financially prudent to invest in backup hardware rather than the assurance that someone will come and hold your hand every few weeks.

Some Estimated Costs per Workstation

HARDWARE 1 laser-type printer $4000 1 PCXT turbo 30 meg $2000: print share and cabling $166-$500 stand/tray/monitor arm $500 SOFTWARE: MS-DOS [Disk operating system]$125 Word Process Program $375 TOTAL COST [for 3 work stations] $ 13,500 AVERAGE [price/workstation] $4,500 INSTRUCTION COSTS Training and On-Site Supervision 1 work-station $500; 2 work-stations $250; 3 workstations or more $200.

Ross Alden is a computer consultant specializing in office automation for legal offices. He can be reached at 931-5510 or by mail at Box 748 Stn A, Vancouver B.C. V6C 2N6

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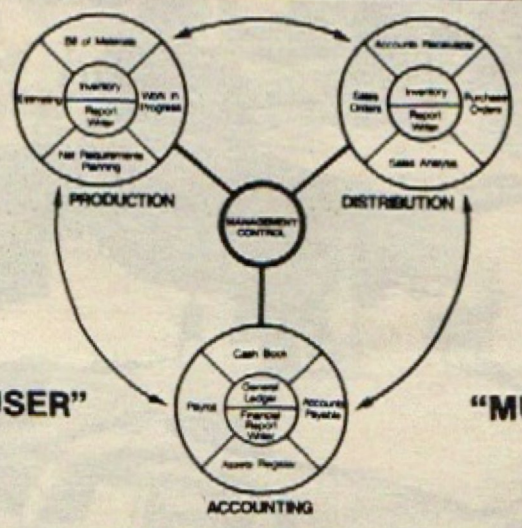

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Bedford and ACCPAC are both very popular systems, while Flex and Impact are newcomers to British Columbia. All four are complete accounting systems which either include inventory control, or offer it as an option.

Bedford

Bedford is an all-in-one accounting system, and considering all that is included in the $249.00 suggested retail price, it is one of the best values on the market. Bedford includes G/L, A/R, A/P, Inventory Control, Payroll, and Job Costing.

Although Bedford lacks some sophistication, it works well in companies with basic requirements. It is also one of the few packages that can usually be set up by an end-user without assistance. Contact Bedford Software in Burnaby for the name of a local dealer.

ACCPAC

ACCPAC is a modular accounting system consisting of 9 major modules. Modules sell for between $549.00 and $1,295. ACCPAC's strong points are it's financial reporting and core modules - the G/L, A/R and A/P.

The ACCPAC family of products includes G/L, A/R, A/P, Inventory Control, Invoicing, Retail Invoicing, S/A, J/C, and Time Billing and Receivables. Over 100 specialized companion products for ACCPAC are available through third parties.

Although ACCPAC is simple enough for the uninitiated to use, novices should budget for professional installation and training, from an individual with good knowledge of accounting principles. ACCPAC has been very successful, and is sold by Computer Associates, a leading provider of micro, mini and mainframe applications.

Flex

Flex is a modular accounting system designed especially for wholesale companies. As the name suggests, flexibility is what Flex is all about. Flex is based on the concept of factory-installed options, not unlike the options available with a new automobile. Needed features are easily incorporated with off-the-shelf customization. Flex is a modular system selling for between $750.00 and $1425.00 per module.

The Flex system includes G/L, A/R, A/P, I/C, Invoicing, S/A, P/O, Bill of Materials, Property Management, Job Costing, and a Report Writer, all of which are purchased separately.

Although the system is very sophisticated, it is one of the easiest systems for a novice to understand, provided again, that a professional handles the installation.

Flex was developed in Ontario by Ray Computer Systems, and is represented in B.C. by Sash Consulting. Although the package is new to British Columbia, it should become quite popular.

Impact

Impact is a sophisticated modular accounting system. Impact includes the basic accounting modules, as well as modules which are especially appropriate for manufacturers. Impact modules sell for $850.00 in the single user version, from $1,250.00 to $1,890.00 for multiuser systems of up to 6 users, and from $1,690.00 to $2,550.00 for systems with over 6 users.

The Impact system consists of G/L, A/R, A/P, I/C, Invoicing, S/A, P/O, Cash Ledger, Report Writer, Bill of Materials, Work in Progress, Estimating, Requirements Planning and Factory Documentation. Professional installation and training is required.

Impact was originally developed twelve years ago in the U.K. for mini computers. Impact has recently been adapted for micro and supermicro computers, and is distributed locally by Syspro Canada. While Impact is relatively new on the block, it's popularity is increasing rapidly.

Functionality

Each of these systems provides the basic functionality you would expect from an accounting system. Each system includes other modules as well as inventory control, and can be installed in companies without any need for inventory control.

Inventory Control is among the most difficult sections of an accounting system to match to a given user's requirements. Therefore, the Inventory Control module is a good place to start when investigating a complete software solution. When the inventory module offers all the required features, proceed with your investigation of the rest of the system.

If you want to add inventory later, keep in mind that it is not enough to know that an inventory module is available, until you confirm that it will work in your business. In most cases, you must stay within the same family of software, or start all over again.

As with all aspects of any system, it is not important to select the most powerful system on the market. Your goal should be to choose a system that offers all the functions you need. The comparison table below outlines some features to look for in an Inventory Control module, but you should give some thought to specific needs your type of business has. We chose to highlight these features, because while they are generally uncommon, they are vital for successful automation when required.

If you find that none of these packages seems to fit properly, be aware that there are many available. Look into Soleman, Open Systems, Real World, MCBA, and Macola. If none of those seems to fit properly, chances are you need something a little more specialized. While these packages appeal to a wide variety of industries, there are specialized packages for every industry ie. retailers, parts suppliers, the fashion industry, auto wreckers, scrap dealers, etc..

Robert Hitchens is president of CompuFind. CompuFind is a consulting firm whose function is to provide unbiased computer advice. 669-5588.

FEATURES	BEDFORD	ACCPAC	IMPACT	FLEX
Compatible Operating Systems:				
DOS Single User	Y	Y	Y	Y
Novell Multiuser	N	Y	Y	Y
Xenix Multiuser	N	N	Y	Y
Unix Multiuser	N	N	Y	N
Inventory Control:				
Maintain Material Lists	N	N	Y	Y
Assemble - consume parts	N	N	Y	Y
Disassemble - restock parts	N	N	Y	Y
Track serial numbers	N	N	Y	N
Number of warehouses	1	2	1,200	Unlim
Pro-rate freight by volume	N	N	N	N
Pro-rate freight by weight	N	N	Y	N
Pro-rate freight by #units	Y	Y	Y	Y
Value by FIFO	N	Y	Y	Y
Value by LIFO	N	Y	Y	Y
Value by average weighted cost	Y	Y	Y	Y
Order entry and invoicing:				
Multiple company/department	N	Y	Y	Y
Operate wholesale/retail depts.	N	Y	Y	Y
Maintains many customer sites	N	Y	Y	Y
Recalls shipping/billing add.	N	Y	Y	Y
Recalls salesperson - each loc.	N	N	N	Y
Recalls territory - each loc.	N	N	N	Y
Recalls warehouse - each loc.	N	N	N	Y
# Pure pricing levels	1	0	32	5
# Discount levels	1	5	3	5
Price override audit list	N	N	Y	N

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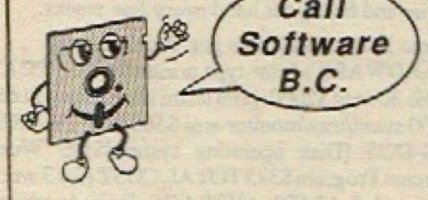

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COMPUTER PAPER COMPUTER CALENDAR

ACCOUNTING

ACCESS CENTRE 290 - 145 Chadwick, North Van 984-4671
Bedford Accounting July 6,7 & 8 $180
BARKEL BUS.SCHOOL, 211 - 3030 Lincoln Ave.Coquitlam 464-8717. Call for night school start dates.
Bedford Accounting $80
ACCPAC $80
COMPUTERLAND LEARNING CENTRE 1035 W. Pender 683-6152. Call for starting dates.
ACCPAC GL $180
Bedford $180
COMPUTER EMPIRE TRAINING CTR 4162 Main 872-1668
New Views Accounting Call for dates $145
COMPUTER PLACE 860 Burrard St, 688-2992
ACCPAC G/L July 11 $179
ACCPAC A/P July 25 $179
DOPPLER'S TRAINING CENTRE 101 W. 5th 875-0261
Bedford Accounting full day, July 5,26 $175
ACCPAC full day course,. $159
DOUGLAS COLLEGE Community Programs and Services 520-5479, or to register call 520-5472.
New Views Seminar July 14 Free
McKAY TECHNICAL INSTITUTE 2151 Burrard St. Vanc. 736-7221 Call for start dates
Computerized Bookkeeping Course 12 weeks
PERSONAL COMPUTER TRAINING INSTITUTE 200-247 Abbot St Downtown 682-5448 12 hour courses
ACCPAC or Bedford Accounting CALL $150
PITMAN BUS. COLLEGE 1490 W. Broadway 738-7848
Computer Accounting Call for start dates
PRECEPT COMPUTER CENTER 735 Clark Dr, 255-3198
Bedford Accounting July 25/26/28/29 $275
PRIMA TRAINING CENTER 207-3900 E Hastings, Burnaby, 294-4567
ACCPAC-Order entry/inventory control July 8 $150
Using ACCPAC-Easy Aug 5 $150
TXL MANAGEMENT SYSTEMS Hotel Georgia 876-7117
New Views 9-12 am July 14 Free
VANCOUVER COMMUNITY COLLEGE 875-2800
ACCPAC G/L I July 4/5/6/7 $140
ACCPAC- Order entry/Inventory control July 8/15 $150
Using ACCPAC-Easy Aug 5/12 $150
Bedford Accounting July 25/26/28/29 $275
VANCOUVER SCHOOL BOARD 736-7241
Vancouver Technical, 2600 E. Broadway
ACCPAC-GL 5 sessions starting July 11, 25 $90
Bedford Accounting 5 sessions starting July 11,25 $90
VAN. SOFTWARE CENTRE 300-1190 Melville 669-9800 Call for starting dates.
Bedford July 14, July 26 $180

DATABASE

ACCESS CENTRE Lonsdale Quay 984-4671
dBase III + Start anytime, computer based training-self paced tutorials (average 20 hrs, no max.) $140
BARKEL BUSINESS SCHOOL 211-3030 Lincoln Ave.,Coquitlam 464-8717. Call for night school start dates.
DBase III $80
COMPUTERLAND LEARNING CENTRE 1035 W. Pender 683-6152, Call for starting dates.
Intro to dBase III + $180
dBase III + Intermediate $180
COMPUTER STATION
2130 Burrard St, Vancouver, Pat Austin 732-8621
Intro to dBase III +, July 14 $175
DOPPLER'S TRAINING CENTRE 101 W. 5th 875-0261
dBase III + Intro July 7, Aug 4 $175
dBase III + Programming July 14 $175
DRAKE COMPUTER TRAINING 100-1111 Melville St 669-8789
dBase III + Intro July 5,28 $175
dBase III + Intermed. July 21,26,27 $175
FIALA, BONNER 810-1112 W Pender 684-1022
dBase III + 1 July 25 $175
MICROAGE LEARNING CENTRE 3609 W 16th Ave, 222-1010
Call for starting dates.
dBase III + Part I & 2 $175
PCTI (PERSONAL COMPUTER TRAINING INSTITUTE)
200-247 Abbot St Downtown 682-5448 12 hour courses
Call for starting dates.
Reflex Plus $150
PBSC TRAINING CENTRE 1350-1140 W. Pender 689-7272
dBase III + 1 July 11,Aug 2 $175
dBase III + 2 July 21 $175
dBase III + 3 July 29 $175
Framework II 1 July 6 $175
PITMAN BUS. COLLEGE 1490 W. Broadway 738-7848
dBase III + Call for start dates
VANCOUVER COMMUNITY COLLEGE 875-8200
Intro to dBase III + July 14 $140
dBase III dBase III + July 30 $115
Database Using Clipper July 7/14/21 $150
VAN.SOFTWARE CENTRE 300-1190 Melville 669-9800 Call for starting dates.
Introduction to dBase III +, July 7, July 30 $180
dBase III + Intermed., July 14, July 26 $180

DESKTOP PUBLISHING

(See also the Macintosh Section for Mac DTP)
BENNDORF VERSTER 380 W 2nd Ave Van 872-8882.
DTP: Canon Express Call for details. $25
DESKTOP PUBLISHING TRAINING CENTRE 400-1190 Melville St., 681-2535. Call for July Schedule
Ventura, Pagemaker and Spellbinder
DOPPLER TRAINING CENTRE 101 W. 5th, Van. 875-0261
Ventura July 21/22 $375
Pagemaker July 28/29 $375
McKAY TECHNICAL INSTITUTE 2151 Burrard St, Vanc. 736-7221 Call for details
Desktop Publishing/Graphic Arts 12 weeks
MICROAGE LEARNING CENTRE 3609 W 16th Ave, 222-1010. Call for starting dates.
Pagemaker $175
PBSC TRAINING CENTRE 1350-1140 W. Pender 689-7272
Pagemaker 1 July 11-13 $450
Ventura 1 Aug 2-4 $450
PRECEPT LEARNING CENTRE 735 Clark Dr 255-3198
Using Ventura July 18/19 $190
Intro to Desktop Publishing July 11/12,Aug 4/5 $130
PRIMA TRAINING CENTER 207 - 3900 E. Hastings St. Burnaby 294-4567
DTP using Ventura July 4 $150
DTP using Pagemaker July 23 $150
SIMON FRASER UNIVERSITY Downtown 687-4255
DTP - Ventura, Alternative Approaches
VANCOUVER ELECTRONIC PUBLISHING ASSOC
BC Club, 750 Pacific Blvd S., Vancouver, 731-5887
Page Layout Seminar, July 6, 7:00 pm with Mary Kletchko
Beginners' Postscript Seminar July 7, 7:00 pm
Intermediate Postscript Seminar July 11, 7:00 pm
$30 (members), $50 (non-members)
An Introduction to Desktop Publishing
Lance Bracken, July 13, 7-10 pm
$10 (members, $35 (non-members)
Mac Pagemaker SIG Nelson Ruest 683-1599
2nd Wed of month Computerland, 1035 W. Pender Free
VANCOUVER COMMUNITY COLLEGE 875-8200
Intro. to DTP July 11/12 Aug 4/5 $130
DTP: Ventura July 18/19 $190
DTP with Pagemaker July 23/30 $190
DTP Using Pagemaker July 23/30 $150
VANCOUVER DESKTOP PUBLISHING CENTRE Ltd 1150 Homer St 681-9161 Steve Osborne, Roedy Green
Ventura Junior Level $159
Ventura Senior Level $159
Desktop Design Clinics $69
Ventura Publisher - Call for Dates
VANCOUVER SCHOOL BOARD 736-7241
John Oliver School, 530 E. 41 Ave
DTP: Ventura sessions start July 5,11,18,25 $135
DTP: Pagemaker sessions start July 5,11,18,25
VAN.SOFTWARE CENTRE 300-1190 Melville St. 669-9800 Call for starting dates.
PageMaker, Ventura

GENERAL INTEREST

Canada Day July 1
DOUGLAS COLLEGE
Intro and advanced courses Info 520-5479 Register: 520-5472
NewViews Accounting Seminar July 14 Free
MICROAGE LEARNING CENTRE 3609 West 16th Ave, 222-1010. Call for starting dates.
Autocad, Customizing Autocad $175
PACIFIC RIM COMPUTER AND COMMUNICATION SHOW November 1,2,3,1988, Vancouver Trade and Convention Centre. Call for details 433-9549 or 433-5121.
VANCOUVER SCHOOL BOARD 736-7241
C-64 Junior Word Processing $65
C-64 Keyboarding and Word Processing $65
C-64 Computer Awareness $65
C-64 Problem Solving Computing $65
C-64 Writing Using Word Processing and DTP $65
C-64 Intro to Spreadsheet & Data Base App's $65
C-64 Creative Computing $65
C-64 Computer Graphics & Animation $65
Apple: Publish a Book on aWord Processor $65
Apple: The Word Processor & Mystery Writing $65

OUT OF TOWN EVENTS

Technology in Education: Expanding Teacher Effectiveness, a summer conference sponsored by the University of Oregon Continuation Center and the Center for Advanced Technology in Education, Eugene, Oregon, July 7-9.Contact UO Continuation Centre, 1553 Moss St. Eugene, Ore 97403 for information.

USER GROUPS

Amiga User Group Meetings (PaNoRama), BCIT, Rm 129A
General Meetings 2nd Wed each month 7:30 pm
Programmers: 4th Wed each month 7:30 pm
Apples BC Computer Society All-purpose open forum July 27, 7.00 pm WCB Auditorium, Gilbert at Westminster Hwy, Richmond. Call Glenn Taylor 271-8509 or Jim Swenor 271-7432.
Apple II User Group Meeting BC Apple Society, Burnaby Rugby Club, Kiyo Masuda 437-9935
Apple III SIG Monthly Kiyo Masuda 437-9935
Beaver Valley Commodore Club Meets first Tues every month at Montrose School Library. Call John Vink 367-6426
B.C. Unix User's Group meets 4 times a year. Call George Pajari 925-2555, 2545 Queens Ave, West Van V7V 2Y9.
Clipper Developers Assoication 1st Mon SFU 873-0747
Commodore Club 1st Tues Sunset Comm Centre 738-3311
Forth Interest Group Speakers and Tutorials on Forth hardware, software and applications. Meetings: 7:30 first Thurs of each month, BCIT main bldg, 3700 Willingdon Rm. 1A-324
Kaypro User Group Vancouver Portable Computer Club 3rd Monday at Kaypro in Richmond (CP/M) 278-5776
Mac User Group Meeting BC Apple Society, WCB Building, 6951 Westminster Hwy (Kiyo Masuda) 437-9935.
Mainland Mac July 13, Aug 10, 7:00 PM Rm 115 Kwantlen College, Surrey, 574-3813, Ron Haidenger.
Maple Ridge Computer User Group 467-2647 M.R. Sr. Secondary School 7:30 PM, Free
NEC APC Users Group Bi-monthly Lee 980-5825
North American Amstrad User's Group. For newsletter, membership application send S. A. S.E. to: 65-13880 - 74th Ave, Surrey V3W 7E6 PHONE: 433-5121 Helen Levasseur
Novell Netware Users Peter Whitelaw 669-8789 monthly
Port Coquitlam Computer Users Group Commodore Amiga & IBM 1st and 3rd Tuesday each month 7:30 pm, Poco Rec Centre 2100 Wilson Ave 942-4286
Tandy 1000+ Club Meetings 3rd Monday each month, 7:00 pm at Kwantlen College, Newton Campus, Rm 209 or 211. Call Len Boscoe 574-5419
The New Apple Alliance May Chow 435-7609 last Saturday of month in Kitsilano Neighbourhood House.
TI Computer Club Central Richmond. Meets 2nd Wed of each month. Phone Keith at 261-2739
Trace (Richmond Atari Club) Thompson Comm. Centre Linus Lane Richmond, 272-5789 1st & 2nd Monday 7:30-9:30
Vancouver Netware User's Group Les Lebbrant 275-2829. Meets 1st Mon of the month.
Vancouver PC Users Group Planetarium 438-6009, $20/year membership. 7:30 pm 2nd Thurs
Vantari 34-3046 Coast Meridian, Pt. Coquitlam B.C. Judy Hercus 873-1941 Hastings Comm. Ctr 3096 E Hastings, (2nd Wed :July 13, Aug 10.7:30-10:30 pm) XL/XE & ST
Wang System User Association 736-8841 ext 227 J.P. Doiron
99 Users Group Meets every Thursday 7-10 p.m. at Cameron Rec Centre, Burnaby. Call Ron at 522-2598. 1st Thurs Games, 2nd Thurs General 3rd Thurs Tutorials 4th Thurs Copying Prog.

INTEGRATED SOFTWARE

DRAKE COMPUTER TRAINING 100-1111 Melville 669-8789
Symphony Database July 7 $175
PERSONAL COMPUTER TRAINING INSTITUTE 200-247 Abbot St Van 682-5448 Call for schedule
PBSC TRAINING CENTRE 1140 W. Pender, 689-7272
Symphony 1 July 5,Aug 9 $175
Symphony 2 July 19 $175
Symphony 3 July 26 $175
Framework II 1 July 11 $175
VANCOUVER SCHOOL BOARD 736-7241
John Oliver School, 530 E. 41 Ave
dBase III + sessions start July 5,11,18,25 $90
Vancouver Technical, 2600 E. Broadway
dBase III + sessions start July 11,25
VAN. SOFTWARE CENTRE 300-1190 Melville 669-9800 Call for starting dates.
Introduction to Framework, July 5, July 18 $180
Framework II, - Inter. July 12, July 29 $180

LOCAL AREA NETWORKS

DRAKE COMPUTER TRAINING 100-1111 Melville 669-8789
Novell Enduser July 19 $75
Novell System Manager July 21/22 $415

COMPUTER PAPER COMPUTER CALENDAR

MACINTOSH

ADVANTAGE COMPUTERS Suite 1760 505 Burrard St.
MACS A.M. 8:30 - 12:00 a.m.; P.M. 1:00 - 4:30 p.m.
- **Intro to Mac** July 5,14,22 — $80
- **Intermed Mac** July 11,25 — $80
- **Intro to PageMaker** July 7,25 — $80
- **Intermed PageMaker** July 18,28 — $150
- **Intro to Microsoft Works** July 11 — $80
- **Intro to Microsoft Word** July 5,7,14,22 — $80
- **Intermed Microsoft Word** July 13,19,29 — $150
- **Intro to Microsoft Excel** July 15 — $80
- **Intro to Hypercard** July 27 — $80

COMPUTERLAND LEARNING CENTRE 1035 W. Pender 683-6152. Call for starting dates.
- **Macintosh Pagemaker** — $180
- **Excel Intro (Mac)** — $180
- **Excel Intermed. (Mac)** — $180
- **Macintosh Basic Skills** — $180
- **Intro Word (Mac)** — $180
- **Interm Word (Mac)** — $180

FOLKSTONE DESIGN INC. Box 44, Grantham's Landing, B.C. V0N 1X0 986-8060 or 886-4502
- **MicroSoft Word** July 20 — $175
- **Aldus Pagemaker Intermed.** Aug 24 — $175
- **Microsoft Excel Basics** July 9 — $175
- **MicroSoft Excel Intermed.** July 23 — $175

SOFTSHELL 4692 Quebec Street, Vanc. 876-5790
- **HyperTalk Scripts, Excel Tips**

PROGRAMMING & DEVELOPMENT

BCIT Full Time 432-8419, Part Time: 434-1610
- **Assembler I (IBM Mainframe)** 6 Wks July 5 — $167
- **Assembler II (IBM Mainframe)** 6 wks July 6 — $167
- **Assembler (IBM PC) I** 6 wks Tues/Thurs July 5 — $167
- **Basic (IBM PC) 1** 6 wks Mon/Wed July 6 — $167
- **Basic I** 6 wks Tues/Thurs July 5 — $139
- **Cobol-Level I** 6 wks Mon/Wed July 6 — $139
- **Cobol-Level II** 6 wks Tues/Thurs July 5 — $139
- **Pascal** 6 wks Mon/Wed July 6 — $167
- **PL/1 Level I** 6 wks Tues/Thurs July 5 — $139

COMPUCOLLEGE Vancouver 682-6600, Burnaby 435 2424, Richmond 273-0373. Call for starting dates. 480 hours full time diploma courses:
- **Computer Programming & Systems Analysis**
- **Microcomputer Electronic Technology**

PRIMA TRAINING CENTER 207-3900 E Hastings, Burnaby, 294-4567
- **Adv. Turbo Pascal** 4 Wks 7-10 PM — $150
- **Prolog** 4 Wks 7-10 PM — $150
- **Adv. Turbo C** 4 Wks 7-10 PM — $150

VANCOUVER COMMUNITY COLLEGE
- **Introduction to C** Aug 8/9/10/11 — $140
- **Introduction to Pascal** Aug 2/3/4 — $140
- **Universal Programming Skills (Flowcharting)** July 25/26/27/28 — $140

SPREADSHEETS

ACCESS CENTRE Lonsdale Quay (N. Van Seabus Entrance) 984-4671. Start anytime, computer based training-self paced tutorials
- **Basic Skills** (average 12 hrs) — $125
- **Word Processing: WordPerfect, MSWord, DisplayWrite, Multimate** — $140
- **Spreadsheets: Lotus 123** (Average 20 hours) — $140
- **Database: dBase III+** — $140

BARKEL BUSINESS SCHOOL 211-3030 Lincoln Ave. Coquitlam 464-8717. Call for night school start dates.
- **Lotus123** — $80

BCIT Full Time Registration 432-8419, Part Time: 434-1610
- **Business Applications (Lotus)** 6 wks July 5 — $167

COMPUCOLLEGE Vancouver 682-6600, Burnaby 435-2424, Richmond 273-0373. Call for starting dates. 480 hours full time diploma course:
- **Microcomputer business applications**

COMPUTER PLACE 860 Burrard, 688-2992
- **Intro Lotus 123** July 19 — $179
- **Intermed. Lotus 123** July 20 — $179
- **Harvard Graphics** July 27 — $179

COMPUTERLAND LEARNING CENTRE 1035 W. Pender 683-6152. Call for starting dates.
- **Lotus 123 Intro** — $180
- **Lotus 123 Intermed.** — $180
- **Lotus 123 Advanced** — $180

COMPUTER STATION 2130 Burrard St, Vancouver, Pat Austin 732-8621
- **Introduction to Lotus 123** July 5,19 — $175
- **Intermediate Lotus 123** July 6,20 — $175
- **Fast Track Lotus 123** July 5/6,19/20 — $325
- **Advanced Lotus 123** call for details

DOPPLER 101 W. 5th, Vancouver 875-0261.
- **Lotus 123 Intro** July 12, Aug 9 — $175
- **Lotus 123 Advanced** July 19 — $175

DRAKE COMPUTER TRAINING 100-1111 Melville 669-8789
- **Lotus 123 Intro** July 7,15,19,20,25 — $175
- **Lotus 123 Advanced** July 11,27 — $175

FIALA, BONNER 810-1112 W Pender Vancouver, 684-1022,
- **Lotus 123 1** July 5,13,29 — $175
- **Lotus 123 2** July 21 — $175

MICROAGE LEARNING CENTRE 3609 W 16th Ave, 222-1010. Call for starting dates.
- **Lotus 123** — $175

PBSC TRAINING CENTRE 1350-1140 W. Pender 689-7272
- **Lotus 123 1** July 6,20,Aug 2 — $175
- **Lotus 123 2** July 15 — $175
- **Lotus 123 (Macros)** July 18 — $175
- **Lotus 123 (Functions)** July 21 — $175
- **Lotus for Executives** July 23 — $175
- **Supercalc IV 1** July 14,Aug 3 — $175
- **Supercalc IV 2** July 25 — $175
- **Smart 1** July 13 — $175
- **Excel 1** July 12 — $175

PERSONAL COMPUTER TRAINING INSTITUTE 200-247 Abbot St Van. 682-5448 12 hour courses
- **Lotus 123 II** — $150
- **Lotus 123 Macros** — $150

PITMAN BUS. COLLEGE 1490 W. Broadway 738-7848
- **Integrated Software - Lotus 123** Call for start dates

PRECEPT LEARNING CENTER 735 Clark Dr. 255-3198
- **Advanced Lotus 123 (Macros)** July 7/8 — $140

PRIMA TRAINING CENTER 207-3900 E Hastings, 294-4567
- **Using Lotus 123 July 11** — $150
- **Lotus Data Management & Graphs** July 9. — $105

VANCOUVER COMMUNITY COLLEGE 875-8200
- **Intro to Lotus 123** July 10,19,Aug 6 — $140
- **Intermediate Lotus** July 20 — $140
- **Lotus 123 Data Management & Graphs** July 9 — $105
- **Using Lotus 123** July 11/18/25/Aug 1 — $150
- **Advanced Spreadsheets (Lotus 123 Macros)** July 7/8 — $140

VANCOUVER SCHOOL BOARD 736-7241
Vancouver Technical, 2600 E. Broadway
- **Lotus 123** sessions start July 5,11,18,25 — $90

VAN. SOFTWARE CENTRE 300-1190 Melville 669-9800 Call for starting dates.
- **Introduction to Lotus 123,** July 6, July 21 — $180

TELECOMMUNICATIONS

PBSC TRAINING CENTRE 1350-1140 W. Pender St 689-7272
- **Crosstalk** (call for starting dates) — $175

VANCOUVER DESKTOP PUBLISHING CENTRE Ltd 1150 Homer St 681-9161, Stephen Osborne, Roedy Green
- **Ventura Publisher Call for dates** — $129

USING YOUR PC

ACCESS CENTRE Londsdale Quay 984-4671
- **Basic Operating Skills** Start anytime, computer basedtraining-self paced tutorials (average12 hrs, no max.) — $125

BARKEL BUSINESS SCHOOL 211-3030 Lincoln Ave, Coquitlam 464-8717. Call for night school start dates.
- **MS DOS Tutorial** — $45

BCIT Full Time Registration 432-8419, Part Time: 434-1610
- **Computers in Business** 6 wks Tues/Thurs July 5 — $139
- **Computer Systems-Intro 1** 6 wks Mon/Wed July 6 — $139
- **Computer Systems-Intro II** 6 wks July 5 — $139
- **Microcomputer Systems III** 4 wks Mon/Fri Aug 1 — $399
- **Data Processing Intro** 1 wk Aug 22 — $139

COMPUTERLAND LEARNING CENTRE 1035 W. Pender 683-6152. Call for starting dates.
- **Intro to Micros** — $180
- **DOS** — $180

COMPUTER PLACE 860 Burrard St, 299-3003
- **MS/PC-DOS** July 5 — $179

COMPUTER STATION 2130 Burrard Vancouver 732-8621
- **Intro to Micros & DOS** , 1 day July 13,22,27 — $160

DRAKE COMPUTER TRAINING 100-1111 Melville 669-8789
- **Intro to DOS** July 5,6,19 — $125
- **Advanced DOS** July 6 — $125

DOPPLER 101 W. 5th, Vancouver 875-0261
- **Intro: Micros & DOS** Every Mon eve thru Sept — $175

FIALA, BONNER 810-1112 W Pender St. 684-1022
- **Introduction to Computers** July 16 — $175
- **DOS 1 & 2** July 4,12,20,28 — $175

MICROAGE LEARNING CENTRE 3609 W 16th Ave, 222-1010
Call for starting dates.
- **Intro to PCs/DOS, Advanced DOS** — $175

PBSC TRAINING CENTRE 1350-1140 W. Pender 689-7272
- **Intro to PC** July 18, Aug 5 — $175
- **DOS 1 & 2** July 5,9,14,20,26,Aug 4 — $175
- **Advanced DOS** July 15 — $175

PCTI, 200-247 Abbot St Van. 682-5448 12 hour courses
- **Intro to IBM-PC and popular software** — $150

PITMAN BUS.COLLEGE 1490 W. Broadway 738-7848
- **Introduction to Business Software**
- **Orientation MS-DOS**

PRECEPT LEARNING CENTRE 735 Clark Dr 255-3198
- **MS-DOS/PC-DOS** Jul7 14/15, Aug 11/12 — $140
- **Intro to IBM PC-XT & Compatibles** July 11/12,July 21/22, Aug 8/9 — $120

PRIMA TRAINING CENTER 207-3900 E. Hastings, Vancouver, 294-4567.
- **Intro to Microcomputers** July 12, Aug 7,8 — $105
- **Using PC DOS,** July 10 — $150

UBC Centre for Continuing Education
Courses held at Microcomputer Lab, Old Bookstore
- **MS-DOS: A Beginner's Guide** July 9, 10-2pm — $65
- **MS-DOS: Advanced Workshop** July 16, 10-2pm — $65

Unix: An In-Depth Approach, July 11-13 at Le Meridien Hotel. Taught by George Pajari. Call to register: Clarendon Datex Ltd. 926-UNIX (8649).

VANCOUVER COMMUNITY COLLEGE 875-8200
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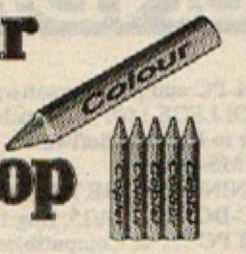

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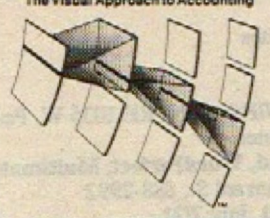

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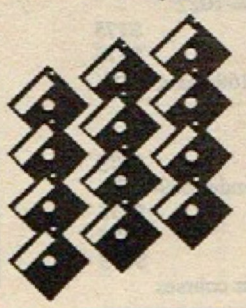

ACCTRAK: Report Writer For ACCPAC

New ACCPAC add-on brings many needed features to ACCPAC reports

ACCTRAK REPORT WRITER version 5.0 by Softrak Systems Inc. Vancouver BC. Distributed by Verpac Marketing Corporation

The ACCTRAK Report Writer is a software package that is designed to produce customized reports by connecting to ACCPAC Plus accounting data. It can also import and export data and retrieve and save transaction data for report preparation from other accounting programs and check the integrity of the data in many accounting data files.

ACCTRAK is installed easily using the 'Install Programs' utility with the ACCPAC Plus version 5.0 'System Manager'. The ACCTRAK data files are created when the 'System Manager' accesses the sub-directory in which the ACCPAC Plus Data files are stored. ACCTRAK reviews the data to determine which systems are in use and prepares a data dictionary which lists all the data files which can be accessed for information to include in custom reports.

The program is menu driven and has the full look and feel of an ACCPAC Plus product. Terminology and menu configuration are similar to ACCPAC Plus. ACCTRAK currently connects with Computer Associate's ACCPAC Plus Accounts Payable, Accounts Receivable, General Ledger and Financial Reporter, Inventory Control, Job Costing, Order Entry, Payroll, Retail Invoicing, Sales Analysis as well as with Softrak's own previous ACCPAC product, Sales Analysis. A connection to Time Billing and Receivables is not yet available.

ACCTRAK Report Writer allows the user to define two types of custom reports, Standard Reports and Table Reports. Standard reports print a line for each record or Group of records. The report is defined in terms of the information which you want to appear in the columns across the page. In a Table report the contents of the fields within the data record are used to define column headings across the page. You may define which fields are to be used to generate the rows and the columns for the table. You can then specify which numeric amount is to be printed at the intersection of each row and column.

Standard Reports can be defined by first connecting to an ACCPAC Plus file. The field contents of this file and others to which it is linked can be included in any column of the report. Columns can be summed or averaged. Column math can be used on the columns in the report and intermediate results can be hidden. The math functions available are: add, subtract, multiply and divide. Calculations such as rebates, commissions, profit or ratio analysis can be performed.

Columnar data can be restricted by selecting the 'Restrict Entries' feature when defining columns. Whenever you select a numeric field for a column ACCTRAK provides an opportunity to restrict the printing of figures to a particular date.

Data can be printed from more than one system and from more than one file in a single report. Files are linked; with this feature the file to which you are connected is joined to one or more additional files.

Installation

ACCTRAK comes with a Tutorial which can be installed at the same time as the ACCTRAK program. It demonstrates a connection to General Ledger and Financial Reporting and to Accounts Receivable. It covers assigning passwords to the various fields and files in the data dictionary, defining date ranges, sequences and groups, conducting a data inquiry and defining and printing a standard and a table report. It would be nice if the tutorial also demonstrated file links between systems and columnar math. Neither of these features are particularly easy for a novice user to understand.

HELP

On line help is available at all times by pressing the F1 key. The entire manual is on line and can be accessed from any screen.

Dates play a very important role in the selection of data for columnar presentation. It is important to give the correct 'Today's Date' at initialization because some date ranges are calculated from this date. One feature I particularly liked was the ease of entering the report dates in 'The Company Profile'. The system requests the year end date and calculates and enters the reporting dates automatically. It would be nice if ACCPAC Plus would copy this feature. The ranges of dates for data that appear on a report are defined with the 'Maintain Date Ranges 'feature. Some date ranges are predefined and customized date ranges can be defined by the user. Some of the pre-defined ranges are: today, last 7 days, week to date from Sunday, full week, month to date etc.

'Groups' are used to specify which records you wish to select for the report. Groups are defined by selecting comparison criteria such as less than, equal to or greater than some pre-defined field contents.

'Sequences' are defined to control the placement of page breaks and the summarization of data. Totals and sub-totals are controlled by the selection of the appropriate sequence. ACCTRAK allows up to five separate fields to be specified and field number one represents the highest order of the Sequence. Data can be stored and reported in either ascending or descending sequence.

Another nice feature available in the 'Maintain Data Dictionary' selection of ACCTRAK is that the user can redefine the name of a data field in the files. For instance the second tax number field in Accounts Receivable could be used to record the name of an alternate contact. The field name is not changed in the ACCPAC Plus module so the operator must be instructed to enter the alternate data to that field. The new field name will be displayed on all ACCTRAK screens and reports and can be used in Sequences.

ACCTRAK allows you to export data to a spreadsheet or database. Any data that is available for report configuration can be exported using templates that can be defined or using report formats as templates. This type of export feature is not available in all the ACCPAC Plus modules so this is a very welcome feature.

Import/Export Capabilities

An import feature is available but it cannot be activated for use with most ACCPAC Plus files because of the necessity to maintain the integrity of the ACCPAC data. One feature I would like to have available because it has been requested frequently by my clients is the capability of importing Vendor and Customer information, not account balances, to Accounts Payable and Accounts receivable. Many users have multiple companies with similar vendor and customer information.

There are additional features available which cannot be accessed when the user is connected to ACCPAC Plus data. The reason for this is that the integrity of the ACCPAC Plus data must be maintained. However Sales Analysis data and data from customized programs can be accessed and the feature in 'Housekeeping' called 'Select the Transaction File Sequence' can be used. In addition the 'Import Data' feature and the 'Retrieve Data, Consolidate Data, Edit Transaction Data, and Maintain Archive Files functions are all available for use on modifiable data captured from programs outside the core accounting system.

A useful feature for individuals who may be configuring reports for more than one company or on more than one computer system is the 'Archive Specifications' feature. Report specifications can be copied or archived so that they can be transported by disk to another system and retrieved for use with a different set of data.

Another goodie that has been given to users is the capability of isolating data in part of a field (string fields only) to create new fields which can be used in Groups, Sequences and reports.

A Must for Manager's /ACCPAC Consultants

The ACCTRAK Report Writer is a well conceived product that provides management with the tools to obtain the customized reports it has been requesting. It should be purchased when a module of ACCPAC Plus will be required because the user will undoubtedly want a report or reports that do not come with the system. ACCTRAK Report Writer should be in the toolbox of every ACCPAC Plus dealer, consultant and qualified installer.

Price: $895 Canadian; a fully operating demo is available with a manual for $65. A maintenance program is available to registered users.

By Joan V. Homal B.Sc. C.G.A. 266-9596

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